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INDIAN NOTES
OR MONOGRAPHS

EDITED BY F. W. HODGE

No.

38



A SERIES OF PUBLICA-
TIONS RELATING TO THE
AMERICAN ABORIGINES

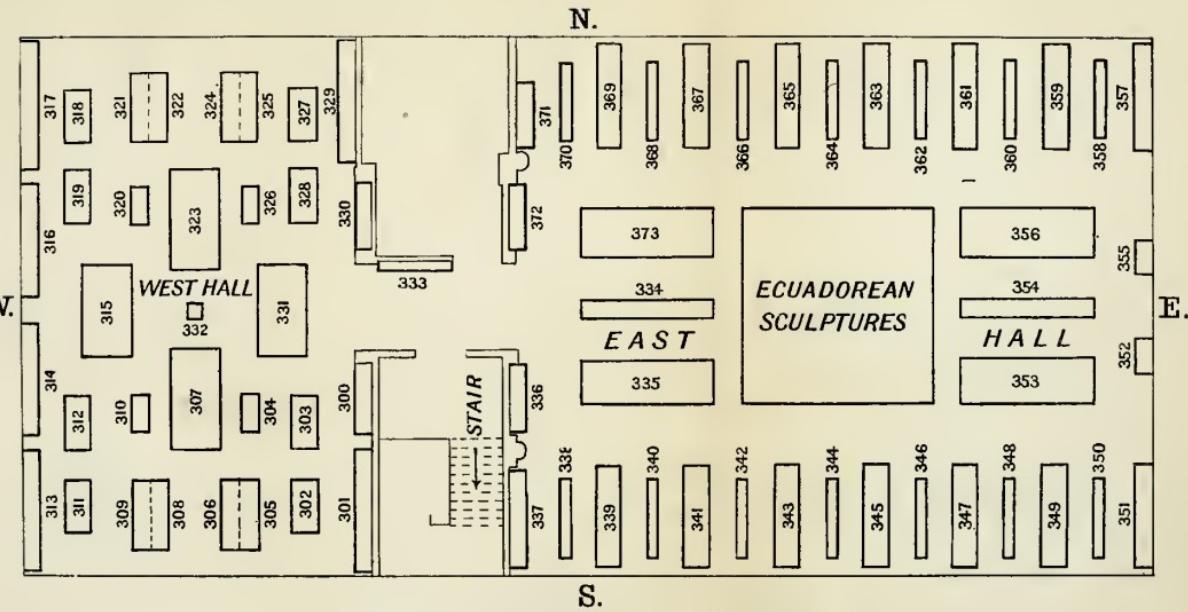
GUIDE TO THE MUSEUM

THIRD FLOOR

NEW YORK
MUSEUM OF THE AMERICAN INDIAN
HEYE FOUNDATION
1924

THIS series of INDIAN NOTES AND MONOGRAPHS is devoted primarily to the publication of the result of studies by members of the staff of the Museum of the American Indian, Heye Foundation, and is uniform with HISPANIC NOTES AND MONOGRAPHS, published by the Hispanic Society of America, with which organization this Museum is in cordial coöperation.

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PLAN OF THIRD FLOOR



400

GUIDE TO THE COLLECTIONS
FROM
MIDDLE AND SOUTH AMERICA
AND THE WEST INDIES

INDIAN NOTES AND MONOGRAPHS

EDITED BY F. W. HODGE

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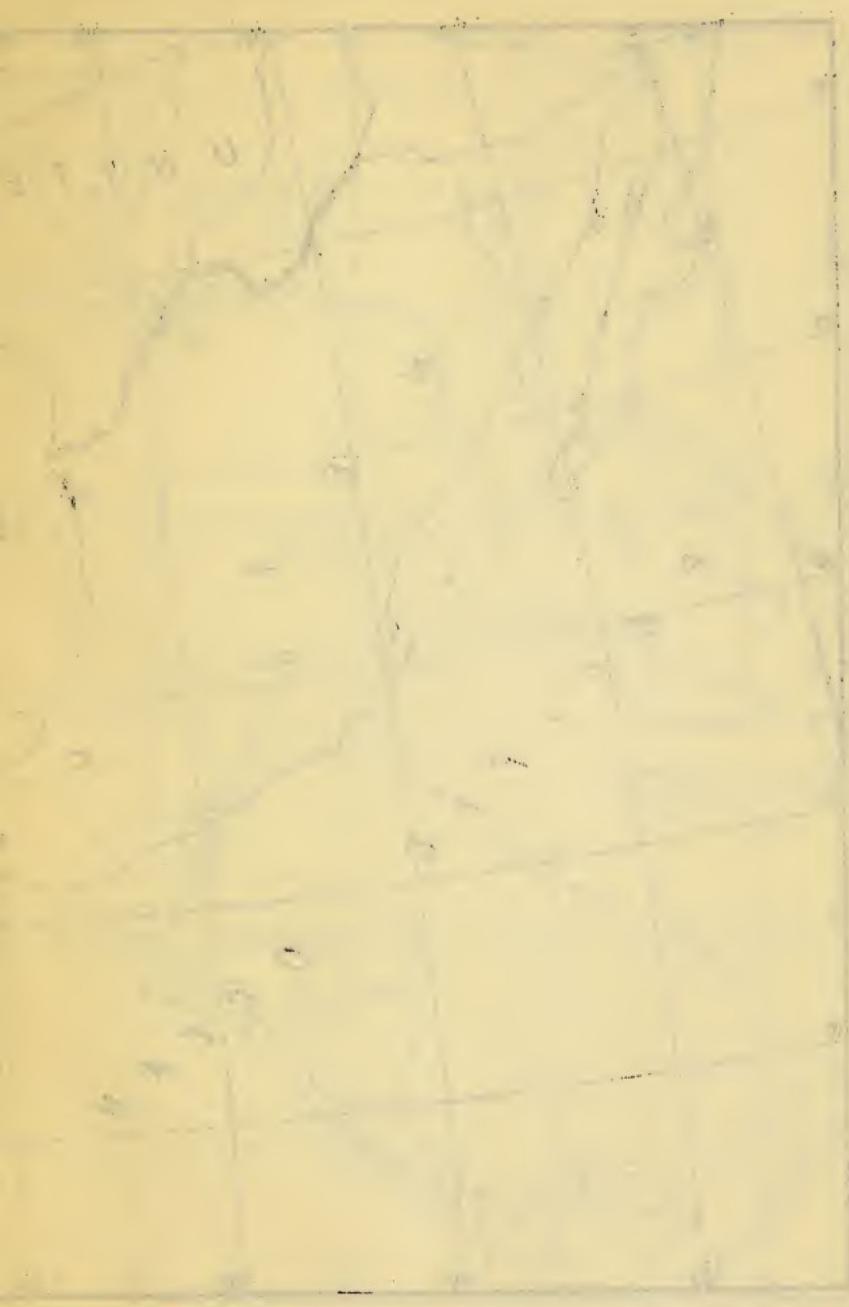
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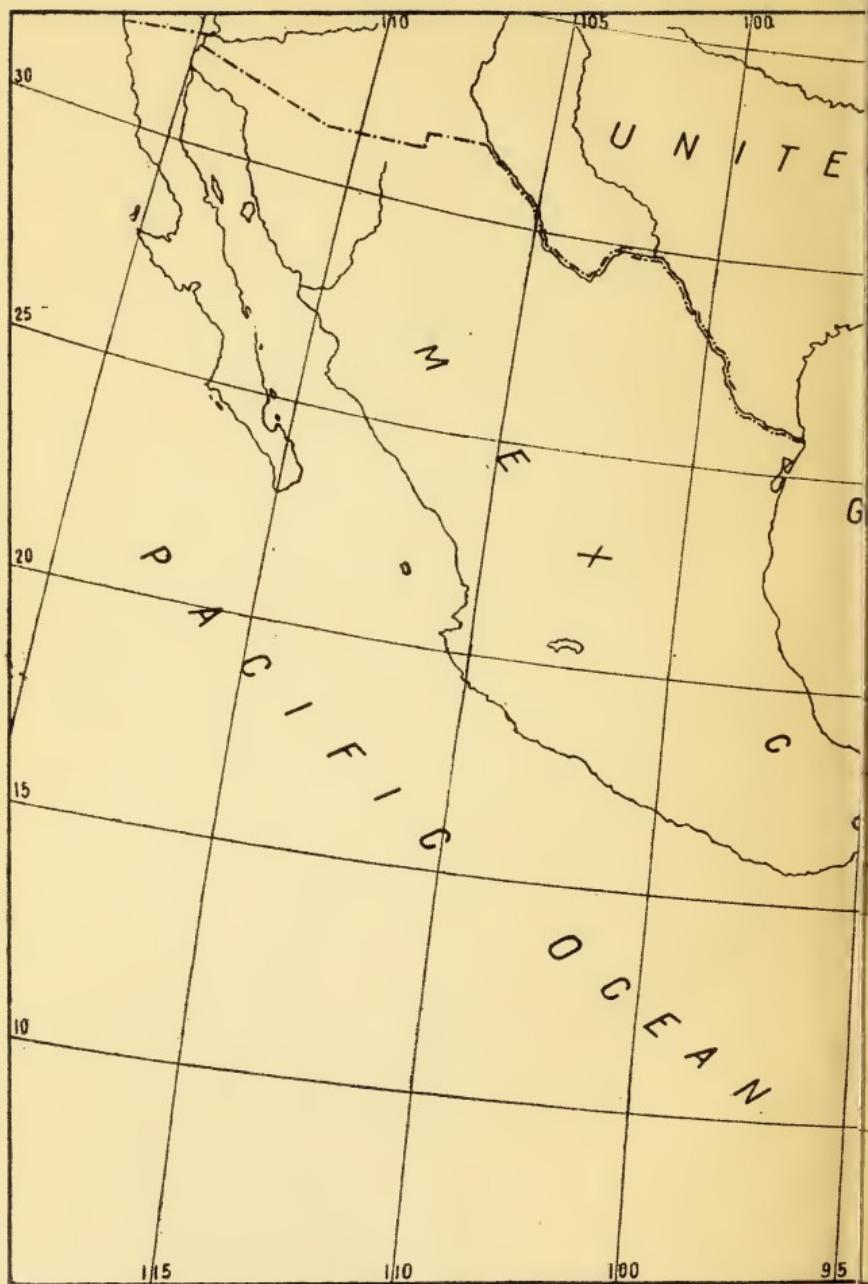
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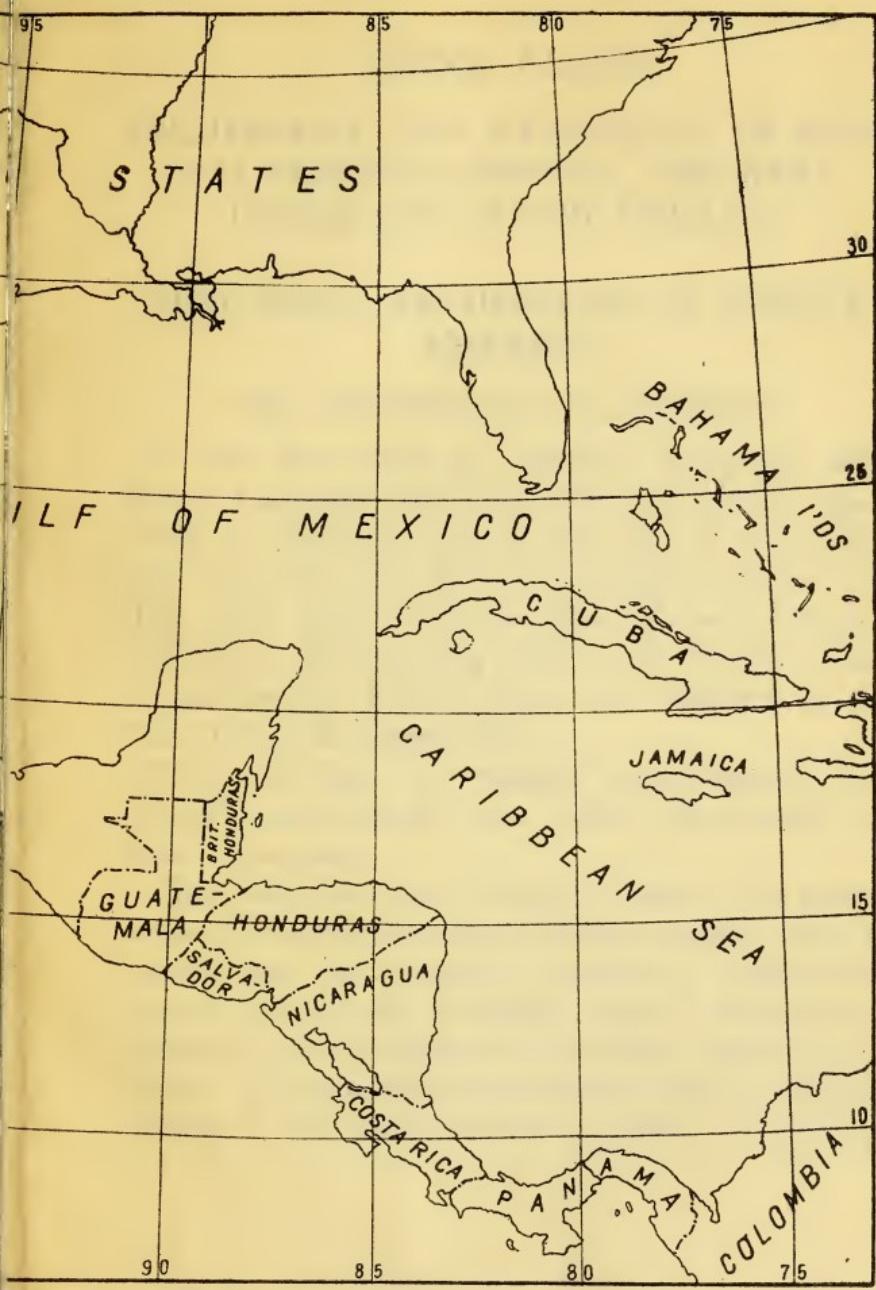
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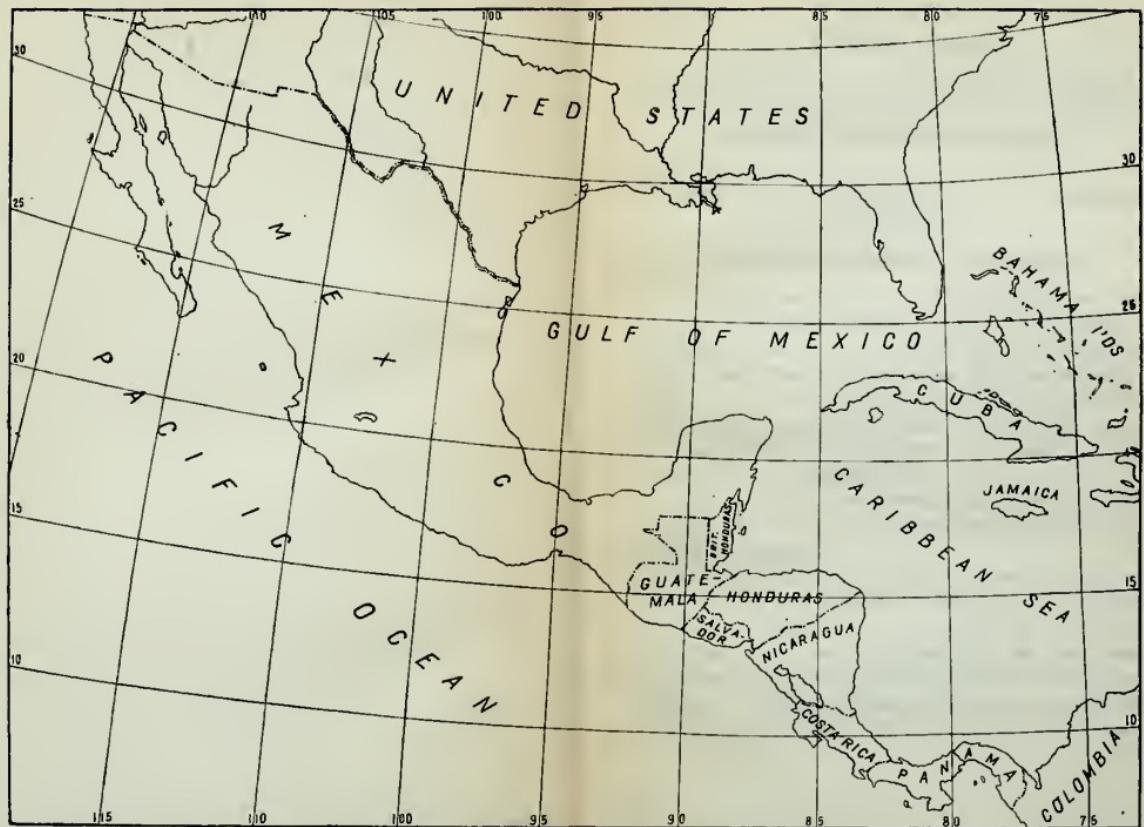
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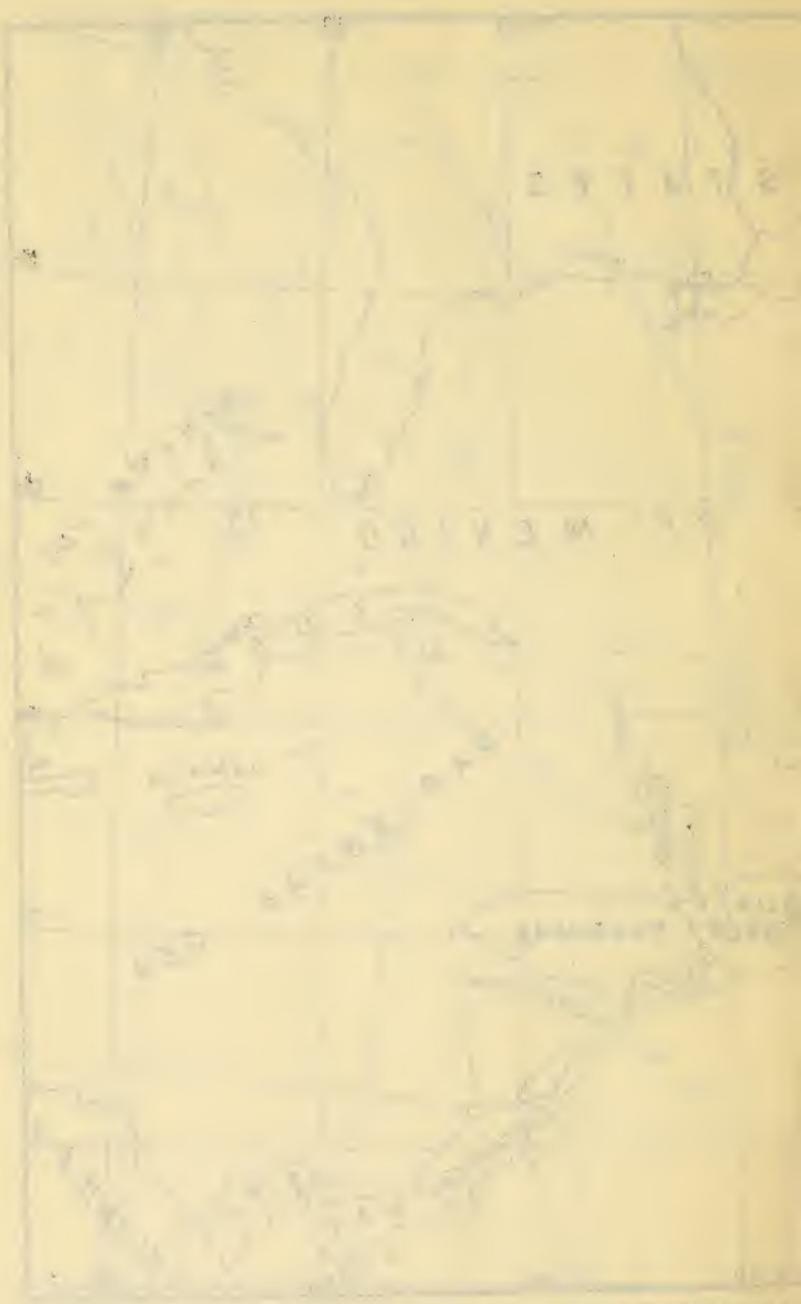


MAP OF MEXICO A





MAP OF MEXICO AND CENTRAL AMERICA



THIRD FLOOR

ARCHEOLOGY AND ETHNOLOGY OF MEXICO, CENTRAL AMERICA, THE WEST INDIES, AND SOUTH AMERICA

WEST HALL—ARCHEOLOGY OF MIDDLE AMERICA

THE ARCHEOLOGY IN GENERAL

IN THE West Hall are exhibited antiquities from Mexico, Guatemala, Honduras, Salvador, and Nicaragua. Owing to inadequate space in this hall, the antiquities from Costa Rica and Panama are displayed in the East Hall. The objects from the ruins of Casas Grandes, Chihuahua, Mexico, being allied to the Pueblo culture of southwestern United States, are exhibited in the East Hall of the Second Floor.

The collections are arranged geographically, but objects representing the same culture will generally be found in sequence.

These collections aim to illustrate some of the phases of the pre-Spanish cultures of Middle America, where in former times there existed a number of independent cultures representing the highest stage of development attained by the aborigines of the North American continent. It is manifestly impossible to present a complete picture of the ancient life of a people by means of

Aim of the
collections

Disappearance of early objects

archeological objects brought together in a museum. Certain phases only may be presented. This is especially true of ancient Mexico, for the elaborate costumes and paraphernalia worn by nobility and priests in religious festivals and dances, described in detail by early writers, have disappeared, with the exception of fewer than a score of examples now in European museums. It is further obvious that architecture, and large stone sculptures such as monoliths and tablets, must be studied *in situ* or by means of casts and the various illustrated publications treating of the great ruined cities of the region. Certain other features of Middle American culture, as, for example, the priceless gold jewels and feather mosaic-work, are absent from the collection. The many uses made of native paper, with the exception of examples of the old records known as codices, will not be found illustrated in museums. Nearly all the codices on native paper are preserved in European museums and libraries, but the majority of them have been reproduced in facsimile and thus made available to students. We must content ourselves, therefore, with finding in museum collections only the more common and less perishable materials, such as vessels, figurines, and other minor objects of earthenware; small stone sculptures; and objects of bone, shell, copper, etc., in the forms of implements and idols.

A word may be said in regard to the origin and rise of the high cultures of Middle America, for they have an important bearing on the question of the development of aboriginal man in America. In the light of present

knowledge it is clearly evident that while the various Middle American stocks, like all the American race, had a most remote Asiatic origin, they progressed toward civilization entirely free from contact with, or influence exerted by, any of the peoples of eastern Asia. The separation came before either people had advanced from the nomadic savage state. Had there been such later contact or influence, we would doubtless find in this region, where the natives reached their highest degree of culture, certain inventions commonly used from time immemorial in China, Korea, and Japan, such as wheeled vehicles, the plow, the carrying stick, terracotta roof-tiles, the potter's wheel, and chopsticks, as well as stringed musical instruments (with the possible exception of the musical bow), all of which are strangely missing. We may account in a measure for the absence of wheeled vehicles and the plow by the fact that draft animals, which have so profoundly benefited man in other parts of the world in his strides toward civilization, were unknown in the New World, if we except the dog and the llama. It may also be added that glazed pottery, glass, and the use of iron were not inventions to be credited to the ancient peoples of Middle America.

The first important remains of the ancient Mexican culture are found in the middle of that part of Mexico which lies north of the Isthmus of Tehuantepec, in the immense structures of La Quemada in the State of Zacatecas. They have been little studied, but probably are the remains of an ancient Nahuan settlement. In Michoacan the ruins of Tzintzuntzan bear some re-

semblance to those of La Quemada. This Tarascan region has been explored only to a limited extent, but the antiquities seem to be related stylistically to those of the earliest period of the Valley of Mexico. The great ruins of the Nahuan area include Tula, Teotihuacan, Xochicalco; Tepoztlan, Cholula, and Tenochtitlan (the site of the City of Mexico), the ancient capital of the Aztec, the dominant branch of the Nahua at the time of the Spanish conquest. Buried beneath the soil of the capital city lie vast numbers of objects, and also the bases of temples and other structures; but the imposing buildings, and most of the sculptures, idols, and books of the Aztec priests, were destroyed by the Spanish conquerors.

In the State of Guerrero, on the Pacific coast, are numberless ancient ruins, from which many interesting objects have been recovered, undoubtedly relics of Nahuan people. In this region, there is reason to believe, originated much of the jade found carved in many forms and designs.

In the State of Oaxaca, Monte Alban, the ancient Zapotec capital, is one of the most extensive ruins in Mexico. The ruined Mitla, in the same district, seems to have had little in common with the Zapotec structures, and must be attributed to the Nahua. In the mountains of the Mixteca, in the same state, the Mixteca, linguistically allied to the Zapotec, had developed a remarkable culture, as evidenced by the pottery, stone, and metal objects found in large numbers throughout the territory; but structural remains have been almost wholly destroyed.

Coming now to the region east of the Isthmus of Tehuantepec, which must be considered geographically as the beginning of Central America, we find buried in the forests of the Mexican states of Chiapas, Tabasco, Campeche, and Yucatan, the remains of hundreds of cities built by the Maya, the people who had made the greatest advance toward civilization of any of the aboriginal peoples of either North America or South America. Their most important ruins are Palenque, Piedras Negras, Seibal, Yaxchilan, Naranjo, Tikal, Labna, Kabah, Uxmal, Chichen Itza, Quirigua, and Copan. Some of these cities are in northern Guatemala, while Quirigua and Copan are considerably to the south, the latter (the southernmost of known Mayan cities) being in northern Honduras.

Maya
remains

In the fine arts the people of Middle America exhibited surprising development along certain lines. In architecture, the monumental remains of the Mayan area, the roofless Mitla temples in Oaxaca, the temples of Xochicalco and Papantla, and the recently uncovered Toltec structures at Teotihuacan, are visible evidences of the outstanding achievements of the Middle American Indians in this direction. Outside of the Maya area the ruins of hundreds of buildings may still be examined, but these edifices of the ancient Middle Americans are largely shapeless masses, found on excavation to have only the lower walls intact. The buildings in the Mayan area are characterized by massive walls of masonry faced with cut stones and covered with thin plaster, and having low doorways and triangularly-arched roofs.

Archite-
ture

In certain cases these are specialized constructions, due to the character of the stones employed. Some of the buildings exhibit successive periods of erection, and this is true of the remains of many edifices beyond the Mayan area. There are others which stand prominently as units of designs, such as the "House of the Governor" at Uxmal, 324 feet in length and containing 24 chambers.

Size of the temples

The palace at Labna contained more than 50 rooms and shows four periods of construction. The Mitla temples are gems of ancient American architecture, exhibiting a degree of perfection not seen elsewhere. Their method of construction is similar to that of the Maya, except that flat roofs instead of the triangular arch were introduced. The great pyramids of Teotihuacan, Cholula, Papantla, Izamal, Uxmal, Chichen Itza, Tikal, and others, are the best examples of this phase of culture; they were all designed to support temples. The many existing temples of Yucatan and Chiapas, and the splendid group at Mitla, are proofs of the mathematical exactness and ability of their ancient architects. Some of the burial chambers, such as the subterranean cruciform tombs at Mitla and the ossuaries of the Oaxaca valley, are elaborate and beautiful structures.

Pyramids

In the use of stucco these ancients were exceedingly skilful, especially at Palenque, in the Mayan area, where magnificent painted bas-reliefs still remain on the temple walls, as well as at Labna, Acanceh, and Uxmal. Many of the pyramids were faced with stucco, as seen at Cempoalla and in the temple pyramid at Tepoztlan, whose white cement surfaces still exemplify this form of

Stucco ornament

embellishment. The pyramids of Cholula and some of the Teotihuacan structures also belong to this class; but the pyramids of Xochicalco, Papantla, Chichen Itza, Uxmal, and Tikal, were faced with stones. The temples on the summits of these pyramids, some of which rise to a height of more than 200 feet, were reached by broad, steep stairways of stone, some of them inclining at an angle of about sixty degrees. Great ball-courts were also erected.

Sculptures in stone are found everywhere, ranging in size from small amulets representing deities to such colossal pieces as the famous Aztec calendar stone, now in the National Museum in Mexico, and the great stelæ of the ruins of Quirigua, Guatemala, where one of the monoliths is 35 feet in height.

Carving in stone, bone, shell, and wood was done with tools of stone, copper, bone, and hardened wood, with the aid of sand and water. Emeralds, jadeite, turquois, chalcedony, opal, rock crystal, obsidian, onyx, and serpentine were carved into numberless varieties of personal ornaments, chiefly in the territory of the Nahua and the Mixtec-Zapotec of Oaxaca, and by the Maya in the mountainous parts of Chiapas and in Guatemala, wherever the desired materials were obtainable. Pearls, mother-of-pearl, and bright-colored shells were used with the precious stones in fashioning necklaces, bracelets, ear-ornaments, and other articles of adornment for the nobles, as well as for idols.

One of the most interesting and highly developed arts in prehistoric America was that of incrusting objects for

Carvings

Jewels

Mosaic ceremonial purposes with precious and semi-precious stones. This form of art reached its highest development among the Nahua, and was practised by the Mixtec-Zapotec and Tarascans. Excellent examples are known also from the Pueblo region in Arizona and New Mexico; but these, together with turquoise mosaic objects from Peru, indicate a somewhat similar though far less perfected application of the art. The materials usually employed were turquoise, jadeite, malachite, quartz, beryl, garnet, obsidian, pyrites, gold, and varicolored shells, fastened to a base of wood, bone, stone, pottery, shell, gold, or paper, by means of a tenacious vegetal pitch or gum, or a kind of cement. The best preserved of these objects are very beautiful, and indeed represent such a high type of art that they must be classed among the rarest specimens of American archeology, less than fifty examples being known. The shields and masks in the West Hall were found in a cave in the Mixteca region of the State of Puebla, Mexico, and probably had been preserved by the natives for many generations after the conquest, revered as precious relics of a lost but not forgotten culture.

Shields and
Masks

Metallurgy

In metallurgy the ancient Tarascans, the Nahuans, Mixtec-Zapotec, and the Totonac, were very skilful in the manipulation of copper into axes, tweezers, finger-rings, rattles, and bells. Some of the objects have proved on analysis to be true bronze. Beautiful objects of gold have been found in the Matlaltzinca region in the Toluca valley, and in the Mixtecan-Zapotecan areas, representing the very highest achievement of the

ancient American goldsmiths. Ear, nose, and lip ornaments; beautiful bells, some representing symbolic faces and heads of animals; beads; circular breast-plates; forehead bands and crowns; bracelets and anklets, and even the remains of armor, all fashioned from the precious metal, have been found in ancient graves. Unfortunately most of such objects were long ago consigned to the melting-pot. Gold was used also to enframe gem stones carved in various forms, and to adorn shields and fans. A book on the subject of the "Goldsmith's Art in Ancient Mexico" has been published by the Museum.

Another art practised by the Nahuan and Tarascan peoples was a class of mosaics in which the designs were made up of tiny bits of colored feathers instead of stones. This unique art was employed in adorning objects for personal use, for warfare, or for priestly ceremonies. The designs were produced by cementing the tiny bits of feathers either directly on wood or on wooden objects covered with skin or with native paper. From descriptions of feather mosaics by the early chroniclers, and from a study of the few specimens that have escaped the ravages of time, it is evident that this art attained the highest artistic level reached by any of the aboriginal tribes of America. Such great care was taken to produce a perfect piece of work that objects of this class were often mistaken by the Spaniards for paintings.

In woodcarving the Mexican and Mayan tribes displayed even more skill than in the working of stone.

Feather
mosaic

Wood-
carving

The great altar tablet of Tikal, the wooden drums, and the atlatls, or spear-throwers, splendidly carved with mythological designs and in some instances covered with gold-leaf, attest their proficiency in this branch of the fine arts.

The ceramics are quite distinctive among the several advanced peoples, hence the provenience of their pottery objects is determinable with more or less exactness. The terracotta figures of the Nayarit-Jalisco-Michoacan district, the earthenware from the vicinity of Cholula and from various sections of the Valley of Mexico, the funerary urns from the Oaxaca valley, and the pottery from different Mayan centers, are characteristic of each culture area. However, as pointed out in a recent study of Mexican archeology, there is pressing need of an accurate classification of Middle American pottery and of a careful investigation of the various qualities of clay employed in the several districts. The latter is particularly important, since it would afford more conclusive evidence regarding centers of pottery manufacture than a mere study of forms. Community of form really only implies connection, and often merely trade connection, which may be second, third, or even fourth hand; but careful investigation of the materials will often reveal the actual locality of manufacture, and when this is fixed for a number of centers, the main lines of trade and the esthetic influence exerted by one locality upon another may be estimated with more than a fair degree of accuracy.

Painting was another art which flourished in this part
Painting of the New World, as shown by the mural decorations on

cement at Teotihuacan, Mitla, and Chichen Itza, and those recently discovered at Tulum, on the eastern coast of Yucatan, and at Santa Rita in British Honduras. The art of painting was considerably developed also in the decoration of pottery, the colors being sometimes applied to a slip of stucco, but in most of the polychrome ware they were applied directly to the clay. This type of ware is found in so many culture areas that the extent of its production is manifest.

Among the customs of these civilized tribes were Personal tattooing of the skin, and decoration of the teeth by adornment filing and inlaying with such materials as jadeite, turquoise, hematite, obsidian, rock crystal, and a kind of cement. Labrets of obsidian, rock crystal, and a combination of rock crystal and gold, were worn. Small horseshoe-shape ornaments of obsidian, stone, or shell, were suspended from the nasal septum, and ornaments of various kinds of stone and of other materials, often of wheel-shape, with a flange, were inserted in perforations in the lobes of the ears. Artificial head-flattening and trephining were also practised.

Many of the musical instruments are still extant. In various museums are found examples of the *teponaztli*, Musical instruments the horizontal drum made from a log of wood, hollowed on the under part, and having two tongues cut out on the upper surface, which were beaten with two rubber-tipped sticks. The upright drum, called *huehuetl*, made from a hollowed log with a head of skin, was beaten with the hands. These drums were generally elaborately carved with mythological designs, and the *teponaztli*

often was fashioned into the form of a human being or an animal. Flageolets, whistles, and rattles of clay, and trumpets and rattles of shell, are of common occurrence. Bones from the human arm or leg were notched and rasped with a bone, or a shell, or a wooden baton, to mark time in native dances. It is almost certain that the musical bow was used by the ancient Mexicans, and it still survives among the Maya of Yucatan. This was the only stringed musical instrument known in ancient America.

Judged by our standards the ancient Mexicans were not a musical people; yet no public ceremony was complete without songs and instrumental accompaniments; they were indispensable in the religious services held in the temples, for by their aid the sacred and historical traditions were preserved. Early writers unite in praising the perfect unison observed by the singers in their performances. Each temple had a band of trained singers, who chanted the songs in monotonous tones, accompanied by the native instruments. The songs were of many kinds, some chanting the praises of the gods or invoking their favors, others recounting the history of former generations; still others were didactic and inculcated correct habits of life, while there were songs in lighter vein that treated of hunting, games, and love. Many of the sacred songs and hymns that have been preserved reveal a highly poetic gift of expression, and their sentiments are of an infinitely higher character than the quality of the music to which they were set.

The ancient peoples of Middle America had developed a certain commercial system of trade and barter, the

Songs

main features of which were: markets in one or more of Commerce the public squares of every town where food and other supplies of immediate necessity were daily sold, ordinary shops being unknown; frequently recurring fairs in each of the larger towns where the products of agriculture, manufacture, and the arts from the surrounding country were displayed before customers and merchants from home and abroad; and similar fairs, but on a grander scale, in the great commercial center, where home products were exchanged for foreign merchandise, or were sold to merchants from distant regions, who attended in large number. Itinerant traders continually traversed the country in companies or caravans. The merchants of the Valley of Mexico formed a highly important and greatly honored class. Owing to this system there are found in ancient graves artifacts from far-distant areas and pertaining to other cultures.

One of the most important sources of information for the study of the ancient culture of this part of the continent is found in the existing pictorial and hieroglyphic codices. As is well known, several of the tribes of Middle America had reached a stage of culture at the time of the Spanish conquest that found expression in the recording of certain events and of mythological and astronomical matters, not only on stone bas-reliefs and in other forms of sculpture, but on material of a more perishable nature. They made books, generally called codices, of strips of well-tanned deerskin, which were folded screen-fashion and covered on both sides with a stucco sizing, on which the paintings were

Codices

applied. They furthermore had invented a kind of paper, made from various materials, such as the membrane under the bark of a certain tree, and fiber from leaves of the amate tree and of the maguey plant. This paper was also sized with a coating of stucco. One of the things which impressed Cortés, when he came in contact with the messengers of Montezuma sent out to receive him, was that some of them were busily employed in making paintings of the Spaniards—their costumes, arms, ships, and other objects of interest, giving to each its appropriate color. These were to convey to Montezuma, in picture-writing, an idea of the appearance of the conquerors, and are the first notices we have of the existence of this art in ancient America. In symbolic and picture writing the Maya were approaching a phonetic system. Recent progress has been made in an interpretation of the codices of the Nahuan and Mixtecan groups, as well as signal success in the decipherment of the hieroglyphic writings of the Maya, preserved in codices, and on tablets, stelæ, and pottery. Of the Mayan type of inscriptions, certain dates and methods of computation have been determined, and in some instances nearly half of the inscriptions have been successfully deciphered. A correlation of initial dates on many of the stone monuments has been made with a high degree of certainty with the years of the Christian era, so that it is now possible to determine with accuracy the period of occupancy of many of the old Mayan cities. To the two known systems of pictographic and hieroglyphic inscriptions, recent investigations in Oaxaca have added a third form among the Zapotec.

The complex calendar system of the Tarasco, Nahua, Mixtec, Zapotec, and Maya, is fundamentally the same, and is evidence of the remarkably high culture which they had attained. But the Maya had a more extended method than the Aztec for the computation of time; in fact, the Mayan calendar is the highest intellectual achievement of the American Indians. Recent investigation of this calendar has revealed various time periods, elaborate computations, and a knowledge of the movements of certain planets. It is now possible to state that, in a number of old Mayan cities the stelæ were erected at intervals of five years. The general scheme of the calendar proper was the division of the year into two unequal parts, 360 days being the year, divided into 18 months of 20 days each; at the end of the last month 5 nameless days were added to complete the true solar year. Each of the 20-day periods had its own name and symbol, but the days were numbered from 1 to 13 instead of from 1 to 20. By this method of numeration the day bearing the same name and number did not recur until the 13 periods had elapsed, making a period of 260 days, called by the Aztecs *tonalamatl*. It was a year within a year, and was used for divinatory or religious purposes. There were also many other intricacies in the Mexican calendar, some of which have not yet been explained.

The ancient Mexicans believed in a future life, which was graded according to the manner of death, and among the Zapotec there were elaborate mortuary ceremonies and the sacrifice of slaves to assist the shades of important persons on their journey to paradise. They had

Calendar systems

Religious beliefs

greater and lesser deities. The principal Aztec god was Teotl, who was worshiped as a supreme being; next was Tezcatlipoca, venerated as the soul of the world, who rewarded the righteous and punished the wicked. The great beneficent god was Quetzalcoatl among the Nahua, called Kukulcan by the Maya, represented by the great feathered serpent deity, undoubtedly a deified culture hero. He invented the arts and by his laws taught the people wisdom. According to his various attributes he appeared under different guises and names, as do other gods of the Mexican pantheon. Tlaloc was the god of rain; and among the Aztec, Huitzilopochtli, the terrible war god, was their patron and protector. There were gods of the hunt and the chase, of play, flowers, wine, merchants, trickery, lust, and so forth, while each trade and occupation had its own patron deity. The religious rites were elaborate and were prescribed with minuteness. The multiplicity of gods required a great number of priests and priestesses, who were almost as highly venerated as the deities they served. There were degrees of priesthood and religious orders. Fixed and movable festivals were common. The great *teocallis*, or god houses, were commanding edifices of stone or adobe, built on high truncated pyramids with annexed buildings. The idols were many and hideous, often smeared with blood from human and animal sacrifices.

In studying Middle American artifacts the student is confronted by the great number of clever frauds which have found their way into all museums and private collections.

Frauds

ANCIENT MEXICO

SIX different cultures are represented in the collections from ancient Mexico exhibited in the Museum, namely:

- | | |
|----------------------|-----------------------|
| 1. North Mexican | 4. Mixtecan-Zapotecan |
| 2. Tarascan | 5. Totonacan |
| 3. Nahuan or Mexican | 6. Huaxtecan-Mayan |

NORTH MEXICAN CULTURE

(Case 313 A)

In this area (except the artifacts from Casas Grandes exhibited on the Second Floor) are included specimens, largely of stone, from the states of Sonora and Sinaloa, and from Lower California. Nothing has been discovered in this region to indicate any such degree of culture as that attained farther south.

TARASCAN CULTURE

(Case 313 A B)

Under this general heading may be included the antiquities of the states of Nayarit, Colima, Jalisco, and Michoacan. It is certain that in this extensive region are the remains of more than one culture, but the archeology is yet too little known to admit of subdivision. It is apparent that many of the small human figures of earthenware exhibited closely resemble those of what is known as the Archaic or Sub-Pedregal culture epoch of the Valley of Mexico. Generally speaking, the material

is characteristic of the region in which found, and cannot be confounded with objects from other culture areas to the north and south.

The Tarascans appear to have been the people who attained the highest degree of culture in this section of Mexico, and their language is still spoken in a restricted part of Michoacan, where formerly nearly the entire area

Range of culture

was controlled by this tribe, as shown by geographic place-names. A few now live in the adjacent states of Guerrero, Jalisco, and Guanajuato. The Tarascans were a valiant people, and for the greater part remained free from Aztec domination at the opening of the sixteenth century, the period immediately preceding the advent of the Spaniards. They do not seem to have been so proficient in architecture or in stone-carving as their neighbors to the south. Remains of their material culture, so far as known, are confined largely to ceramic objects, such as receptacles, and human and animal figures, and to objects of metal, stone, and shell. They are reputed to have been skilful in weaving and in the production of feather mosaics.

As in the case of other peoples of Middle America, many phases of the Tarascan culture are lost, but a certain knowledge of their customs and costumes may be obtained by a study of the considerable numbers of large human figures of earthenware found in a great variety of forms in graves and in subterranean vaults throughout the area once occupied by them. These figures are of particular interest as showing the styles of dress, the nose and ear ornaments, the customs of tattooing, head-

Pottery
313 A B

flattening, and hairdressing, and their weapons, implements, and musical instruments. These pottery objects form a class distinctive of the area in the character of the reddish or brownish terracotta of which they are made. Animal figures are also found.

A method of decorating pottery vessels and figures found in widely separated areas of ancient America was in vogue among the Tarascans. This is called negative painting, and was achieved by placing on the vessel or figure the pattern in wax or in other soluble or combustible material, over which a permanent paint was spread. After firing or immersing in boiling water, the design appeared in the color of the clay outlined by a black or red paint. This method of decoration still exists in Middle America, but is restricted to gourd vessels.

Negative
painting

The most important phase of the ceramic art of this area was the production of a type of decoration on vessels commonly called encaustic, or cloisonné. After firing, the vessel was covered with a rather thick coating of a kind of bluish-gray clay or a blackish or greenish pigment, into which were cut designs representing geometric or human figures. The sunken spaces were then filled with pigments of varying colors, producing a kind of mosaic decoration. The exact counterpart of this style of ornamentation is not known elsewhere, but pottery vessels from the Nahuan region showing somewhat analogous treatment will be noted later. The encaustic process still persists among the Tarascans in the embellishment of gourd and wooden plaques—the so-called lacquer-ware made near Uruapam.

Encaustic
ware

Pipes 310 Smoking-pipes of pottery also have been found in this region, of a type different from those of the Valley of Mexico, the only other part of Middle America where they have been encountered in relative abundance.

Metalwork The Tarascans were proficient in the goldsmith's art, beautiful bells and discs being found in graves, and they succeeded in beating gold-leaf which they applied to beads and to vessels of pottery. Some of the objects of copper fashioned in filigree are among the most skilful art products in this metal to be found in ancient America.

Atlatls 315B In the region of the Tarascans is found the only survival in Middle America of the *atlatl*, or spear-thrower, a grooved stick used to propel a spear, employed by the Indians in catching fish in the lakes.

NAHUAU OR MEXICAN CULTURE

(Cases 310, 312, 313 CD, 314, 315, 320)

The numerous and powerful family of which the Aztec are the best known branch, extended over a considerable part of Mexico from the State of Sinaloa along Range the Pacific coast in the northwest, down through the western part of central Mexico, reaching the Atlantic coast in the State of Vera Cruz, and crossing the Isthmus of Tehuantepec into the State of Chiapas. Colonies settled also along the Pacific coast of Central America, notably in Guatemala, Salvador, Nicaragua, and Costa Rica, and even along the Atlantic coast of northern Panama, and they even extended their sphere of influence into the Maya region along the Gulf of Mexico in

Tabasco and Yucatan. Linguistically the Aztec or Nahua are allied to the Shoshonean and Piman tribes of western and southwestern United States and northwestern Mexico, forming a vast stock which numerically is the largest and ethnologically the most important in North America. There are today probably two million Indians in Mexico speaking the Nahuan or Mexican language. In the great area formerly occupied by this people, all kinds of environment are to be found, from the humid lowlands of the torrid zone, the fertile lands of the temperate region of the mountains, the wind-swept almost desert plains of the great interior plateaus, to the cold country of the forested highlands. This family reached the highest degree of culture in North America proper, considering that part of the present Republic of Mexico east of the Isthmus of Tehuantepec to belong geographically to Central America. Its development from a state of nomadic savagery to the relatively high culture observed by the Spaniards at the beginning of the sixteenth century must have required a long period of time. Tribe succeeded tribe in waves of migration in different parts of the country, and ruined cities are scattered throughout the region.

Sequence of Archeological Periods in the Valley of Mexico

Recent archeological investigations in the Valley of Mexico have brought to light three well-defined types of ancient culture. In a number of sites these cultures have been discovered superimposed, the earliest being in some instances 15 feet below the present surface. The objects

thus far recognized as being of this earlier epoch are mainly of pottery—small complete figures and heads in human form, and sherds of vessels. The style of modeling the figures and heads closely resembles that of the Tarascan area.

There has also been found a transitional type between that of the earlier and the middle periods.

The types of cultures have been denominated as—

Archaic or Sub-Pedregal Type

Transitional Type

Teotihuacan or Toltecana Type

Aztecana Type

In addition to the more or less stratified remains beneath the débris of ruined cities, objects of the Archaic type only have been discovered under a thick and extensive lava-flow known as the Pedregal, a discovery that definitely establishes the character of the art of the Archaic period, as the remains are identical with those found in the lowest stratum at other sites.

The term Teotihuacan (formerly generally called Toltecana) has been given to the type of artifacts of the next chronological period, because of the knowledge gained from a study of the great mass of material found at the imposing ruined city bearing that name near the present City of Mexico. Here also Archaic remains, as well as numerous specimens of the Aztecana type, are found, verifying what is known historically regarding the late Aztec occupancy of this site.

The Aztecana type has been established by the character of the material found beneath the City of Mexico,

the site of the former Aztec capital, and on or near the surface in the immediate vicinity.

A collection from the environs of the City of Mexico and from the ruins of Teotihuacan is displayed (Case 312), arranged, according to the types established, under the direction of Dr. Manuel Gamio.

The ceramic art of the Nahuans is fairly well represented in the collections of the Museum. Painted ware predominates in the bowls, plates, ollas, and censers, found abundantly in the great central plateau region. Local differences in style of decoration may be noted in the various groups. Of minor objects small human figures and heads, used in religious rites, have been found in great numbers. Artistically engraved spindle-whorls are common. Personal ornaments were often made of pottery.

In personal ornaments and other objects and implements of various kinds of semi-precious stones, may be gained an idea of the skill of the old Mexican lapidaries. Some of the very small pieces are veritable gems of carving. The varied uses of obsidian, or volcanic glass, are well displayed by the exhibit, and the employment of shell and bone in implements and ornaments is also shown. The curious use of human leg-bones for musical instruments will be noted.

An interesting series of stone masks and idols are examples of stone-carving of considerable merit. The Nahuans made stone boxes with covers elaborately carved with mythological designs and dates, these used for containing the ear-blood offerings to the god Tezcatlipoca. A splendid specimen representing the sun disc,

Nahuan
pottery
310, 313,
314, 320,

Objects of
semi-
precious
stones
315

Other
objects

Stone
masks, idols,
boxes
315 A B

Sun-stone
315 A

over which is carved a human figure with the head thrown back as if in supplication or worship, is likewise exhibited, and has been described in a Museum publication. Like the boxes, it belongs to the Aztecan period.

Mosaic
shields and
masks
315 C D

The Museum is fortunate in possessing, through the characteristic interest of Mr. James B. Ford, a remarkable series of the turquoise mosaic-work of the Nahuans. These ceremonial shields and masks of wood incrusted with mosaic-work were found some years ago in a cave in the mountain region of the Mixteca in the State of Puebla. Recently illustrated and described in a Museum publication, they are the only collection of the kind in any American museum, and the largest series in existence, seventeen specimens being displayed.

Atlatls
315 B D

From the same region are the two beautiful ceremonial atlatls, or spear-throwers, carved with mythological designs, one of which bears the date 1489 in Aztecan hieroglyphs. They are among the rarest of objects from Middle America. Above is exhibited another type of spear-thrower, a modern survival used by the Tarascan Indians of Lake Chapala to launch spears in taking fish.

Native
paper
315 D

Certain fragments of paper used for wrapping gum incense for ceremonial offerings are shown.

MIXTECAN-ZAPOTECAN CULTURE

(Cases 309 A B, 311)

The Mixtecan-Zapotecan people occupied the region of southern Mexico called Guaxaca in pre-Spanish times,

now known as Oaxaca. In the beautiful fertile valleys and in the mountains, the people of this stock reached a high degree of culture, and although their antiquities reveal both Nahuan and Mayan influences, in the main the culture retained its individuality. Few cities remain to enlighten us concerning their architectural attainments. Their sculptures in stone, such as small slabs, stones to seal underground tombs, lintels of tombs, and stelæ, are peculiarly local in type. The great capital city of the Zapotec in the valley of Oaxaca, now called Monte Alban, undoubtedly the ancient Zachila, is one of the most extensive and imposing ruins in the New World, occupying the summits of several hills commanding three valleys. The wonderful ruins of Mitla include a number of beautiful and well-preserved structures, apparently temples, the most remarkable examples of aboriginal American architecture, but indicating strong Nahuan influence in the region. In the valleys of the central area are numerous groups of mounds dominated by a large pyramid or temple mound. Explorations have shown that the majority of these were designed for mortuary purposes, as they cover sealed stone vaults—ossuaries where the dead were deposited with various personal ornaments, food vessels, and other objects. After elaborate ceremonies once a year for four years, the defleshed bones were often painted red and placed either on the floor or in niches in the walls of the vault. The doorway was then sealed with a large stone, often sculptured with mythological figures, and large funerary urns, often in series of five, were placed near the chamber to guide the spirits of the deceased on their journey

Culture
status

Monte
Alban

Mitla

Mortuary
mounds

to the afterworld. Terracotta tubing, sometimes elaborately decorated, or stone drains, often led from the front of the tomb outward, probably to prevent water from entering the chamber while the tomb was left uncovered, although it has been suggested that perhaps they may have served as an outlet for the escape of the souls of the departed. Afterward the vault was covered with earth, adobe bricks, and stones, and sometimes over the mound a dome-like covering of white cement was erected. The innumerable antiquities from the Zapotecan region have been found largely in tombs of this description.

Among the most interesting specimens of ceramic art

Funerary urns in Mexico are the funerary urns from these ancient tombs.

309 B They represent gods, men, and animals, and are interesting by reason of the personal ornaments which they bear, modeled in clay, including various forms of ear-ornaments, necklaces of stone and shell, beads, breast-ornaments in the form of human heads, and hieroglyphs.

Personal ornaments Where no mask covers the face, the teeth in many instances are filed, a custom which prevailed extensively in Mexico and Central America. Garments shown are capes, skirts, and loin-cloths.

In the working of semi-precious stones and obsidian into personal ornaments and amulets, the people of this

Objects of semi-precious stones region were especially skilful. The many jadeite ornaments and implements are noteworthy for their beauty.

311 The most striking specimens of carving in this material from the region of Mexico west of the Isthmus of Tehuantepec are from the State of Oaxaca. The little

stone amulets, usually representing rudely carved human figures, were probably worn as the central feature of a string of stone beads, in much the same manner as the Indians of today wear a crucifix. Small carvings in shell and bone from the Mixteca and the valley of Oaxaca, studied in connection with the ornaments and carvings in stone, reveal high artistic skill not exceeded in any other part of ancient America. An object of especial importance is the roughly blocked-out vessel of onyx representing a death's head. It was in process of manufacture and shows the method of excavating the interior by means of a hollow drill and breaking off the resultant cores. The Mixtec and Zapotec were the most proficient goldworkers of Middle America, some of their ornaments found in tombs being masterpieces of the goldsmith's art. These Indians also employed copper and bronze in fashioning ornaments and implements. All in all, the art remains of these people show them to have been in many respects the most esthetically advanced tribes of America.

Other
ornaments

Onyx vessel

Metalwork

TOTONACAN CULTURE

(Case 308 A B)

In the central part of the State of Vera Cruz are found the remains of the Totonacan culture. Its affiliation with the Nahuan or the Mayan people has not been definitely determined, but the art of the region shows certain decided influences from both sides. Such meager investigation has been conducted in this important area

that we are ignorant of many phases of what seems to have been a very high development of the aboriginal culture of ancient Mexico. In this region are the ruins of well-built cities containing interesting pyramidal structures (*teocallis*), one of which, Papantla, is among the most imposing of its kind in Middle America. At the time of the visit of Cortés, the glistening white walls Cempoalla of the edifices of Cempoalla, the capital city, made a profound impression on the Spaniards.

In ceramic art the Totonac were unsurpassed in the modeling of expressive human heads and figures, notably the so-called "laughing faces" which are confined to a single restricted area. Another peculiarly local feature of their art is the common use of a black bituminous paint to represent the mouth and eyes of human heads of pottery of the archaic type, a feature rarely encountered in other parts of Middle America. Polychrome ware was highly developed.

The well-known stone "collars," or "yokes," of Mexico apparently emanated from this territory, and many conjectures have been advanced regarding their use. They have been supposed to have been placed over the necks of victims to be sacrificed in religious ceremonies; but there is reason for belief that this type of objects represents an idol, probably an earth god, as the U-form of the sculpture is the same as that employed in picture-writings to represent cultivated ground. In this sense it may have been intended to symbolize the God of the Underworld, or of Death. The other type of carving is palmate or paddle-shape, and it

Pottery
308 B

Stone collars
308 B

seems to be somewhat closely associated with the yokes. There is great variation in size and details of sculpture in the palmate type; but both classes are among the most beautifully wrought objects of stone known to Middle America. A few specimens have been found far from their place of origin, undoubtedly transported during pilgrimages to the shrines of some great deity.

Palmate
carvings

HUAXTECAN-MAYAN CULTURE

(Cases 300-308)

In the great area covered by the Mayan culture the American Indians reached their intellectual climax. The Mayans were the only people of the New World who had invented and perfected a complicated hieroglyphic system approaching phoneticism, for recording time periods, dates, and mathematical calculations; indeed they were mathematicians of a high order. Their dates are capable of correlation, with a fair degree of accuracy, with our own chronology to periods before the beginning of the Christian era. These records, expressed in pictures and hieroglyphs, were carved on stone, wood, or terracotta, and use was made of screen-like books, called codices, of a kind of bark paper coated with a thin lamina of stucco, the subject-matter of which was graphically painted in various colors. Only three of these codices survive, but it is probable that many were buried in tombs of ancient priests and will be recovered when more extended archeological work is carried on in the Mayan territory.

Glyphic
system

The exact region in which the ancient Mayan culture had its inception is still unknown. The earliest date thus far found is recorded on a small idol of jadeite from a place outside the Mayan linguistic area, in the mountains of southern Vera Cruz, Mexico. From the character of its carving this relic probably points the way to the region where search should be made for the birthplace of the Mayan culture.

Age of the culture
Its development

But the Mayan family developed its highest culture in a region of rich lowlands, where nature was lavish with her gifts and highly organized labor was necessary in order to control the luxuriant tropical vegetation. In this area are found nearly all the important ruined cities with stone buildings, which occupied the greater part of southern Mexico east of the Isthmus of Tehuantepec, now included in the states of Chiapas, Tabasco, Campeche, and Yucatan, and British Honduras on the eastern coast of the Yucatan peninsula. The Maya influence extended over Guatemala (with the possible exception of a narrow strip on the Pacific coast), southward into northern Honduras, and perhaps over the greater part of Salvador. Separated from this vast territory by Aztec-speaking peoples, in the northern part of the State of Vera Cruz, in the region of Tampico and Tuxpan, there are found even today a people known as Huaxtec, who speak practically pure Maya, but whose arts and customs, as well as antiquities, are remote from those of the Maya of Yucatan..

In the general area mentioned, the family was divided into seven branches speaking numerous dialects. Over

the entire northern section, the State of Yucatan, pure Maya is still spoken by several hundred thousand people. In Guatemala the Mayans predominated, but along the Pacific coast are the remains of another and lower culture, the little-known Szinca, whose language is apparently related to one of those of the State of Oaxaca, and is considered to be that of a people who preceded the Mayans in this area. Another and later culture is that of the Pipil, a branch of the Nahuan, who undoubtedly came into the land at a comparatively recent period, and settled along the coastlands of Guatemala and Salvador. They have left in Guatemala interesting large stone sculptures of a distinctive character.

Range of
the Mayans

Szinca and
Pipil

The culture of the Mayans developed in the southern and southwestern sections of the country; later the first of their great cities was abandoned and the people worked their way northward into Yucatan. The earliest dates on the ancient stone monuments thus far discovered in the so-called "old empire cities" extend to the second century of our era and reveal a full-fledged civilization, "the flower of long-continued astronomical observations expressed in a graphic system of exceeding complexity." It is probable that, as research progresses, dated monuments may be discovered that will carry back the records many centuries.

Seats of
Mayan
culture

In the magnificence and variety of their massive stone buildings the Mayans were unrivaled in ancient America. The architecture of the various districts depended largely on the physical and orographic nature of the land and the character of the local building materials. On the table-

Buildings

lands of Guatemala and Chiapas the existence of independent tribes living in close proximity rendered it necessary for the cities to be built more compactly, and in many cases they were fortified. Here architectural refinements are not found.

It seems clear that the greater number of the cities were centers of population surrounding the temples of worship and the residences of the rulers. These cities were not densely populated except at fixed times, such as during religious festivals or stated markets. Artisans, merchants, priests, those connected with the care of the temples, and the rulers and their followers, formed the permanent population of the towns, which were truly sacerdotal cities. Most of the people lived then, as now, in simple thatch-roofed huts surrounded by their corn-fields, and were scattered widely over the country.

The principal edifices were built on artificial terraces and grouped around courts. An ever-present feature is a large pyramid from which rises the temple. The permanent buildings, therefore, may be grouped roughly into two classes, namely, temples, and so-called palaces which were probably the habitations of the priests and rulers. Many of the structures, such as small buildings on lofty pyramids, and certain circular towers found occasionally in various part of the Mayan area, were unquestionably used for astronomical purposes. The ornamentation of the stone buildings consists of sculptured façades, door pillars, and lintels, and often the interior walls are elaborately carved. Sometimes stucco was lavishly employed, and in many cases colors were used in decorating

Cities

Temples
and Palaces

Pyramids
and Towers

Ornamen-
tation of
buildings

the stone or stucco-covered walls. Mythological and historical paintings in various tones have been discovered on the plastered walls of rooms, and in some edifices elaborately carved wooden lintels and altar tablets have been found. Massive carved slabs and other monoliths occur at many of the ancient sites, which from interpretation of their inscriptions seem to have been erected at intervals of five years.

On the nature of the building-stone found in the district, native architecture and sculpture depended. As the available stone material was less fit for sculpture, the excellence of the ceramic art increased proportionately, as evidenced by the antiquities of the Alta Vera Paz highland region of Guatemala, where little good building-stone existed, hence substantial advance in architecture became arrested. The polychrome pottery and sculptured terracotta artifacts here, however, reflect an artistic skill that was not surpassed by any of the other Mayan tribes.

Pottery

Generally speaking, the Mayans were expert potters, employing a variety of technical processes in the decoration of their earthenware, such as painting, modeling, engraving, sculpture, and stamping. Some of the most beautiful examples of the ceramic art of ancient America have come from Mayan tombs. To the Mayan culture must also be attributed the so-called glazed ware, characterized by a surface luster forming a semi-vitreous glaze of varying shades, nearly always with a mottled surface. This ware probably had its origin among some tribe or family of potters of Guatemala, where was found the

clay that possessed ingredients productive of this peculiar glaze. Specimens have been found at widely scattered sites from western central Mexico to Salvador, giving evidence of the extensive trade connections of the Mayans.

In considering the Mayan culture one must examine collectively the artifacts from the entire area dominated by it. There is a general similarity in the archeological objects from eastern Guatemala and from adjacent lands to the north, in southern Mexico, in the states of Chiapas, Tabasco, Campeche, and Yucatan, and in British Honduras, as well as to the south in Honduras and Salvador. Local types of pottery and of other objects are found, due probably in large measure to differences in time in the development of the Mayan people. While sculptures bearing hieroglyphic inscriptions may be placed in their proper chronological position by an interpretation of their dates, as well as on stylistic grounds, the minor objects generally cannot yet be thus classified, as has been done with the pottery figures and sherds found in the Valley of Mexico.

YUCATAN PENINSULA

(Case 304)

STRICTLY speaking, the archeology of Yucatan includes the Mayan antiquities found in the Mexican states of Campeche and Yucatan, the territory of Quintana Roo, the Colony of British Honduras, and the Department of Peten in Guatemala, for these are all modern political subdivisions of the Yucatan peninsula.

Only a few specimens are exhibited from the State of Yucatan. The most important of these are the portrait heads of stucco from a subterranean chamber in the House of the Governor at Uxmal, the finest known examples of work in stucco from Middle America. The copper bells and mass of copal incense were recovered from the sacred cenote at Chichen Itza, part of the vast sacrificial offerings cast into the well with human victims.

Stucco
heads
304

Among the pottery vessels is a noteworthy example of a sculptured vase made of a beautiful highly polished paste, exemplifying a class of late Mayan ware peculiar to the Yucatan peninsula. Pottery whistles and rattles are excellently modeled, and are like those from the neighboring states of Campeche, Tabasco, and western Chiapas. These types, however, are rarely found in British Honduras. Beads of pottery are exceedingly common, in contradistinction to those of stone, which are comparatively rare, for there is no stone in the peninsula well adapted to the making of ornaments, especially the prized greenstone, like jadeite, which could have been transported only from the distant Chiapas mountains. This scarcity of stone accounts for the great abundance of personal ornaments of shell of varying shapes and sizes, nearly always found in the tombs of Yucatan. The first Spaniards who skirted the coast received from the Indians of Tabasco many necklaces of gold-covered earthenware beads.

Bells
Incense
304

From Chiapas will be seen two beautifully carved ornaments of jadeite, and a remarkable knife chipped from mahogany obsidian.

Pottery
304

Ornaments
304, 305 A

BRITISH HONDURAS

(Cases 305, 306)

THE most important collection of Mayan antiquities in the Museum is from British Honduras and the adjoining Department of Peten in Guatemala. Splendid examples of polychrome ware are exhibited, elaborately painted with mythological designs. One of the cylindrical jars bears the only hieroglyphic inscription known on a pottery vessel that can be interpreted and the date correlated with our chronology, namely, about 600 A.D.

Pottery
305 B
306 A B

Attention is called to the carefully modeled and painted earthenware figurines and large incense-burners characteristic of this part of Mayan territory. Clay drums which are found also far to the south in the region of Chiriqui, Panama, occur.

Flint
and
obsidian
forms
305 A B

Personal
ornaments

Decorated
teeth
305 A

The large series of flint implements, and of small flint and obsidian objects of eccentric forms seem to be peculiar to this region; indeed it is probable that the flint used in making implements found in Honduras came from British Honduras. Personal ornaments of shell, pottery, jadeite, and copper, are plentiful in this region. The ancient people had the custom of decorating the teeth by filing, and by inserting bits of worked hematite in small circular cavities cut in the enamel.

GUATEMALA

(Cases 300-303, 332)

Present
Indians

IN many parts of the highlands of Guatemala the population is almost exclusively aboriginal, hence the Indian

tongue is the only one heard. The natives still cling to many of their ancient customs, and their picturesque costumes are each characteristic of the locality. In the native dances, however, many Christian motives have been introduced, modifying them to some extent. The native medicine-men are greatly revered and feared. (See page 130.)

The archeological collections from Guatemala represent various phases of Mayan culture, chiefly from the western highlands, with a few specimens from the ruins of Quirigua in the Atlantic lowlands. From the hitherto unexplored area of Costa Cuca in the lowlands of the Pacific coast, the Museum obtained by excavation the collection of pottery vessels exhibited. The culture represented by these apparently penetrated the highlands of Quetzaltenango, the region of the Quiche, whence came the vessels displayed. In the general character of the earthenware of this Pacific coast and adjacent mountain area, one observes little in common with that of eastern Guatemala and the northern area of Mayan culture. Through this Pacific coast region Nahuan people strayed in their southward migration, and a colony remained there, the Pipil dialect of the Nahuan language being still spoken by a few Indians. Perhaps the receptacles and other pottery objects referred to should be attributed to the Nahua, although the Maya-Quiche have now overspread the western highlands. One of the noticeable features is the shoe-shape vessels, common in Oaxaca and very abundant in Nicaragua, but they are hardly known in other parts of Guatemala.

Costa Cuca
pottery
301

Quetzal-
tenango
pottery
300 B

Pottery
origins
300-301

Pocomam earthenware
301 C

Especially local in character are the shallow plates, some of them decorated with spikes, which have been brought up in large numbers by divers from the bottom of Lake Amatitlan, a beautiful sheet of water lying slightly below and to the south of the highlands where Guatemala City is situated. This was the seat of the Pocomam of the Mayan family. From this culture area have come also the curious tripod urns with masks, unique examples of which are displayed.

Pocomam and Cakchiquel
301 A

Mainly in the regions of the Pocomam and the Cakchiquel are found great numbers of human heads and figures of pottery, of archaic type, examples of which are exhibited. The sites where these occur most abundantly are around Lake Amatitlan, and the highland around Guatemala City and Antigua, the ancient capital. In this region have been found the only known examples of Mayan hieroglyphic writing in western Guatemala—a monolith near Guatemala City, and the globular stone pendant which was discovered near Antigua. The worn glyphs are of the cursive type found in the codices.

Glyphs
301 A

Sculptured vase
332

In the very center of southern Guatemala was found the splendid piece of ancient Mayan ceramic ware exhibited in a special case, the most beautiful example of aboriginal earthenware known to the Western Hemisphere. The excessively rare sculptured decoration is a triumph of native art of the best period of Mayan development. It was presented to the Museum by Mr. Harmon W. Hendricks, and has been described and illustrated in a special publication. (A reproduction of the design may be seen by drawing out the slide in the front of the case.)

Ornaments of jadeite are often found in this territory, the raw material probably having been procured not far away. In no other territory of America have been found so many cutting tools of chloromelanite, an extremely hard, greenish-black stone allied to jadeite. The only other places where this material was abundant are the Valley of Mexico and the State of Guerrero, the implements found in the valley having probably been introduced from the latter place.

Extensive quarries of obsidian occur in various parts of western Guatemala. Specimens of quarry refuse from near Fiscal, on the line of the railroad from Guatemala to Zacapa, are shown. Obsidian knives and other implements, such as scrapers and arrowheads, are common throughout the entire Mayan area, the source of the material being undoubtedly in the west.

Many rude idols of different kinds of stone and of varying sizes are found. Some of the smaller images were worn as fetishes with a string of stone beads, recalling those of the Zapotec area of Oaxaca. A splendid sculpture of unique character, representing a Mayan deity, is displayed on the wall near Case 301; it is from the ruins of the ancient capital of the Quiche, was presented to the Museum by Mr. Rodman Wanamaker, and is the subject of a special description in one of the Museum publications. Certain curious mushroom-shape stones with three supporting feet are commonly supposed to be stools, but this interpretation of their use is not altogether satisfactory. The U-shape stone should be compared with similar objects from Vera Cruz. These

Jadeite
objects
302 A

Obsidian
objects
303 A B

Stone
idols
301 C
302 A
303 A B

Sculpture
303 D

U-shape
stones
303 C
308 B

sculptures undoubtedly had their origin in the state named, the region of the Totonacans. Similar specimens have been found in Honduras and Salvador.

Metates

302 C D

Metates, or mealing-stones, in the form of animals, with either three or four legs, are peculiar to Nicaragua, Costa Rica, and Panama. Of rare occurrence in western Guatemala, they are unknown to the region northward (Mexico). The specimens exhibited, therefore, are of importance, as only two or three others have been found.

Club-like

stones

303 A

Many large perforated stones, like club-heads, are common in this area. The biconical perforations, however, appear to be too small to admit a staff of sufficient diameter to be rigid enough to serve as a handle.

Stone

heads

301 C

From the famous ruins of Quirigua in the lowlands of eastern Guatemala are exhibited several human heads carved in stone, which formed part of the decoration of one of the temples. The reclining human figure, unfor-

Chacmool

type of

statue

301 C

tunately lacking the head, at the bottom of the case, is a representation of the Chacmool type of a Mayan deity, made known by Le Plongeon from the examples uncovered by him at the ruins of Chichen Itza in Yucatan. The same general type has been found in different parts of Mexico and in Salvador, and was supposed to have been a motive introduced into the Mayan region from the Nahuans of Mexico, but occurrence of this important specimen at Quirigua controverts this theory. The two fine censers, likewise from Quirigua, are worthy of study.

Censers

301 C

HONDURAS

(Case 307)

HONDURAS, one of the most important areas of Middle America from an archeological point of view, is also one of the most neglected fields of research. With the exception of the extreme northwestern portion, where are the remains of the Mayans and the famous city of Copan,—probably the southern limit of Mayan culture,—little is known concerning its antiquities. From Copan, and the valleys of the Chamelecon and Ulua rivers, has been gathered a wealth of antiquities. From the latter region the Museum has an important collection illustrating the advanced Maya culture, chiefly in ceramics. Many beautiful examples of polychrome and other types of pottery vessels are displayed. Among the unique objects of earthenware exhibited is the large “glazed-ware” whistling jar, the vent of which is in the back of the head of the effigy. By the movement of the water when the jar was filled, a clear note was produced. Pottery whistles, stamps, and small idols from Honduras are abundant.

Maya
culture
of
Ulúa
valley

Pottery
307 A B

Human
figures
307 D

Copper
bells
Mosaic
mask
307 E

Jade
307 F

Many interesting examples of archaic art will be observed in the human figures and the heads therefrom, made of light-gray clay. As in kindred specimens from other parts, these are not hollow, but solid. One of the most interesting collections is that of the copper bells, and a turquoise mosaic wooden mask from a cave near Chamelecon river. Many ornaments of a beautiful apple-green jadeite have been discovered in this region.

An important feature is the small collection of marble vessels from the Ulua valley, among the most beautiful specimens of stone carving from aboriginal America. The marble was quarried from a known site in the vicinity, and no pieces have been found elsewhere. Stone vessels of a somewhat similar technic are found to the southward, in eastern Nicaragua.

Marble vessels 307 B Flint implements 305 A F Shell ornaments 307 F

Well-shaped implements of flint, similar to those from British Honduras, are common, and the ancient people were as fond of beads and other shell ornaments as were those of the peninsula of Yucatan.

Trade 307 C Some of the specimens from Ulua valley, which could have had their origin only in distant regions, as Costa Rica and Vera Cruz, afford evidence of the extensive trade relations of the inhabitants of this small part of Honduras with those of other territories. Palmate or paddle-shape stones, like those from Vera Cruz, are the most significant objects exemplifying this trade.

Copan 307 C From the ruins of Copan there are a few interesting sculptures, the most important being an archaic green-stone idol found in that part of the ruins where the first buildings were erected. Potsherds of polychrome ware from Copan compare in every way with specimens from Ulua valley and from Salvador.

SALVADOR

(Case 323 A B E F)

SALVADOR, smallest of Central American republics, Character is a land contorted by every known form of volcanic action and subsequent erosion. Rugged mountains, gradu-

ally increasing in height toward the north, enclose fertile valleys, which for untold centuries have been the seats of dense habitation. The climate is very hot; the rainfall is not so heavy as on the north coast of Central America.

The present population is largely of mixed blood, but perhaps twenty per cent are aborigines belonging to three linguistic stocks—Pipil, Lenca, and Matagalpa. The Pipil dwell in the western part of the country near Sonsonate and along the Balsam coast, until recently inaccessible. Formerly their eastern and northern boundary appears to have been the river Lempa. In eastern Salvador are a number of villages inhabited by Lenca Indians, who, unlike the Pipil, have for the greater part forgotten their native idiom. In addition two villages in the Lenca district speak a dialect of the Matagalpa tongue of Nicaragua. Before the Spanish conquest the Ulua of Nicaragua occupied also a few towns in Lenca territory, and two Maya dialects, Chorti and Pocomam, may have been spoken on the north-western and western frontiers.

Indian population

The archeological ruins of Salvador consist of mounds and pyramids of earth and uncut stone. In the Pipil area these are often set out in an ordered plan, but in the east no preconceived form is evident. The largest and most important sites are La Asunción, Chalchuapa, Cuscatlan, Cara Sucia, Tehuacan, Tipa, and Quelepa.

Archeological objects consist chiefly of pottery and utensils of stone, but in the Pipil region stone idols of considerable size occur. The best known of these are the “Virgen” of Tazumal and a statue of the “Chac-

Ruins
Stone
idols

mool" type. Smaller idols are not uncommon and often have a curiously hunched back. Axes, pestles, mortars, metates, and other minor stone objects are found, likewise ornaments of jade.

The potters' art was highly developed in Salvador, Ceramics but is dominated by the influence of neighboring cultures. The outstanding ceramic group consists of polychrome vessels—bowls and cylindrical jars of Maya type. The closest relationship is displayed with the art of Ulua valley in Honduras, rather than with the nearer (and probably more ancient) forms of the great city of Copan. A second large group is made up of figurines and associated effigy bottles which are dependent on the "Archaic" culture of the Valley of Mexico, which spreads southward across Guatemala to western Honduras and Salvador. Thirdly, there is a complex of figurines of sub-Maya type, and bowls and jars, often set on four legs and sometimes decorated with negative painting. These are attributed to the Lenca, as practically all come from Lenca territory. Finally occur figurines, whistles, and polychrome vessels which are distinctly related to the Pacific area of Nicaragua and which may be the handiwork of the Ulua, if not actual trade pieces from the south.

Minor wares Such are the major divisions, but other and rarer ceramic types are known. Among these is Plumbate ware, in examples of which the Museum collection is unusually rich. This kind of pottery is distinguished by its semi-vitreous surface and lead or orange tone. Its distribution is from central Mexico to Panama, but it is

everywhere rare. Although manufactured as early as the sixth century A.D., its focus and archeological significance are unsolved problems. Another small group includes vessels of Aztec type; among these are jars with faces of the rain god Tlaloc in low relief. Other minor wares, from our present state of knowledge, are of local importance and will not be discussed here.

In spite of the small size of the country, no carefully recorded excavation has been carried out, and the solution of general problems awaits more exact data. However, as a result of the Museum expedition of 1924 and a study of distribution of types, it is clear that almost all the Maya polychrome pottery falls in the Pipil area, and little else is found. From this it is deduced that the Pipil, eleventh-century immigrants from Mexico, conquered and absorbed the culture of the Mayan inhabitants. In eastern Salvador the dominant type is the "Archaic" of Mexico. The presence of intermediate forms shows blending with the pottery group here defined as Lenca. Aztec types are limited to several sites at which settled the Mexican allies of the Spanish conquerors.

NICARAGUA

(Case 331 A B E F)

NICARAGUA is the largest of the Central American republics. The Pacific side of the country is dominated by a chain of active volcanoes and geologically recently uplifted land which has impounded the waters of two great lakes. To the east of the lakes lie the older moun-

tains forming the continental backbone, which is cut by the overflow from the lakes. To the north is a series of plateaus embraced by the mountains. The Atlantic littoral consists of broad flood-plains cut by many rivers and sloping down to a series of lagoons and swamps. This region, known as the Mosquito coast, or Mosquitia, will be discussed in the following section.

In ancient times the population centered, as it still Population centers, around the fertile basin of the great lakes. The earliest inhabitants were Chorotegans, who extended from the Gulf of Fonseca to the Gulf of Nicoya. The Chorotegan tongue is spoken also by two groups in southern Mexico. A second and smaller linguistic group, the Subtiaba, also is related to a Mexican tongue. A third element was formed by Nahua who had migrated from the Mexican plateau in the eleventh century and settled in Nicaragua about 1420 A.D.

On the east side of the lake lived tribes known to the ancient writers as Ulua or Chontal. They are said to have had a much lower culture than their neighbors, and a few of their descendants still live in great simplicity in the jungles today.

Historical accounts of the aborigines of Nicaragua show that while they lived on a plane below the great Indian civilizations, yet they had a well-ordered social system and elaborate regulation of their markets, laws, wars, marriages, religious festivals, etc. The land is extremely productive, and was described by the first Europeans who saw it as a Mahomet's paradise.

Large stone statues, attaining as great a height as 12 feet, are the outstanding feature of the archeology of the Pacific half of Nicaragua. Representing human forms in various attitudes, often with associated mythological animals, large numbers of these statues have been recorded near the great lakes. It has been possible to assign dates as early as the fifth century B.C. to some of these figures, and a study of their distribution shows that their makers, the Chorotega, once occupied a large part of Honduras.

Other objects of stone include elaborate metates, or mealing-stones, often of considerable size and abundantly decorated. Stone axes, bark-beaters, spear-thrower pegs, etc., are other finds.

Pottery is exceedingly common. Most spectacular, perhaps, are the large urns in which the bodies or the bones of the dead were placed, together with the customary funerary accompaniments. Great cemeteries of these, placed side by side like eggs in a nest, have been uncovered near the lakes. Other ceramic types include a brilliant polychrome ware, and also a kind, known as Luna ware, marked by extreme delicacy of the designs. Also should be mentioned large incense-burners, usually capped by figures of mythological animals.

Archeological sites are exceedingly common and chance finds are frequent. The sites are often marked by mounds which served as foundations for the houses or were erected over burials.

Statues
Other
stone
objects

Ceramics

MOSQUITIA

(Case 331 H)

ALMOST nothing is known of the antiquities of the Mosquitia coast of Honduras and Nicaragua. For the greater part their makers were Indians of low culture who dwelt along the coast or near the banks of the numerous rivers that drain this low territory of Central America. Even today the country is almost uninhabited by white men, and the small Indian population is widely scattered.

Sculptures Four sculptures from this region are exhibited. The large stone tripod vessel is similar to some reported from the eastern slopes of the mountains to the westward, and they have been found also on the Bay islands off the coast. The three-legged metate is of the Pacific coast type. An interesting sculpture is that representing an armadillo. The monolithic axe points to influence from farther south. It seems probable that the makers of these objects borrowed many features of their culture from the Pacific coast tribes. So far we now know, there is nothing of Mayan origin in this region, although Mayan and the Mosquitia people were in close proximity.

Columbus discovered the coast of the Mosquitia on his fourth and last voyage to the New World in 1504, sailing from Honduras, where he first reached the mainland, eastward and southward as far as Panama. He reported people of a relatively high culture along the shores of the southern section of Mosquitia, but as yet no archeological investigations have been made in this part of Central America.

ARCHEOLOGY OF THE WEST INDIES

(Cases 316-319, 321, 322, 324-330)

NATIVE POPULATION

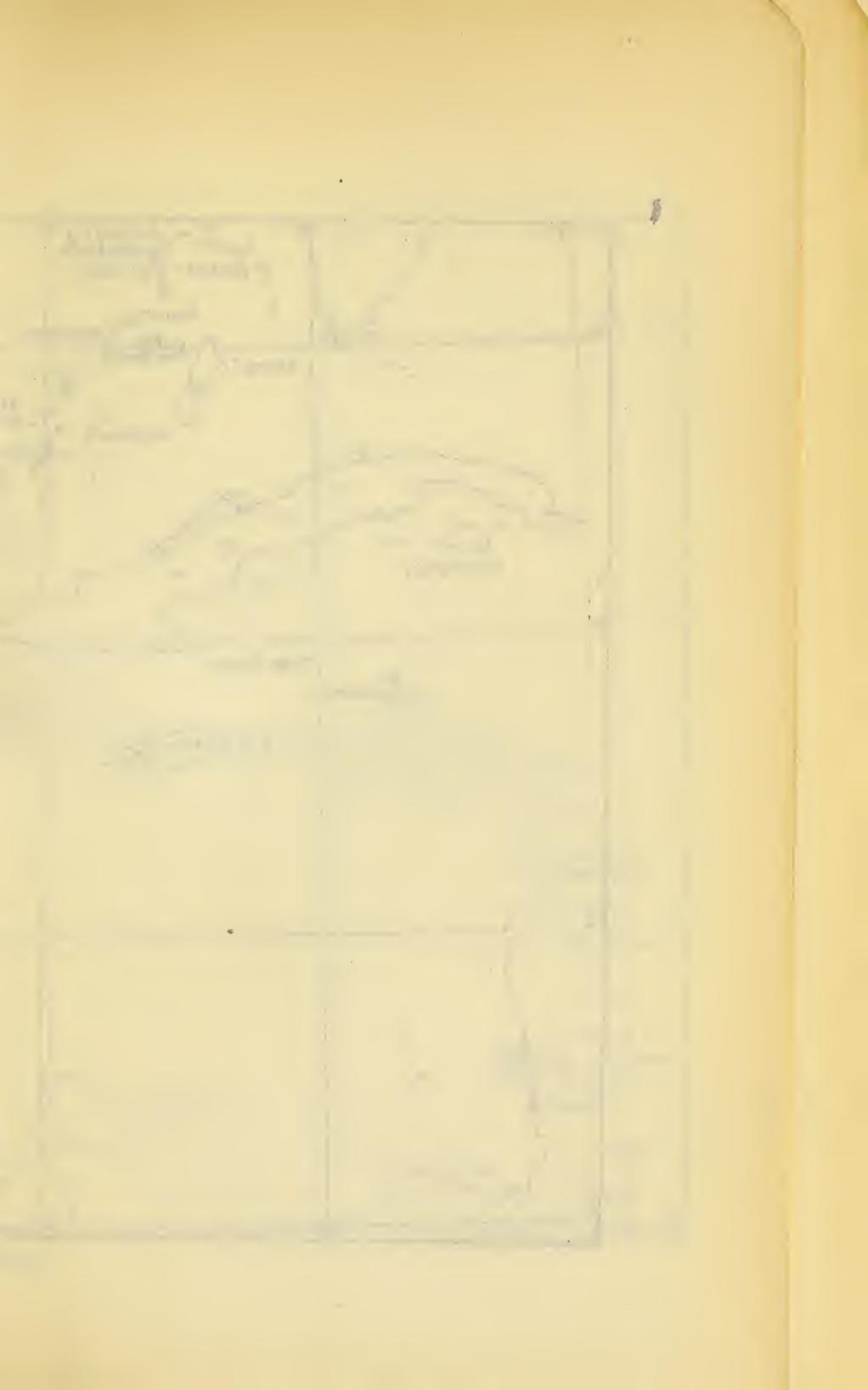
THE Indians of the Antilles possess an especial if melancholy interest in view of the fact that they were the first of the American aborigines to meet the white invader from overseas, and the first to lose their lands and to suffer virtual extermination at his hands. Columbus, and the early explorers following in his wake, found the Bahamas and the Greater Antilles (Cuba, Haiti, Porto Rico, and Jamaica) inhabited for the larger part by a number of peaceable agricultural tribes speaking similar dialects of the Arawak language, now grouped by students under the name of *Taino*. In the large islands of Cuba and Haiti were also found a very primitive group of Indians, in Cuba called *Ciboney*, which, although apparently at one period occupying large areas—the whole of Cuba, for instance,—by the time of the discovery survived only in certain isolated districts. These savages lived largely in caves, subsisting on natural products, without knowledge of agriculture, and were able to manufacture objects of only the simplest and crudest kinds. (See map, page 134.)

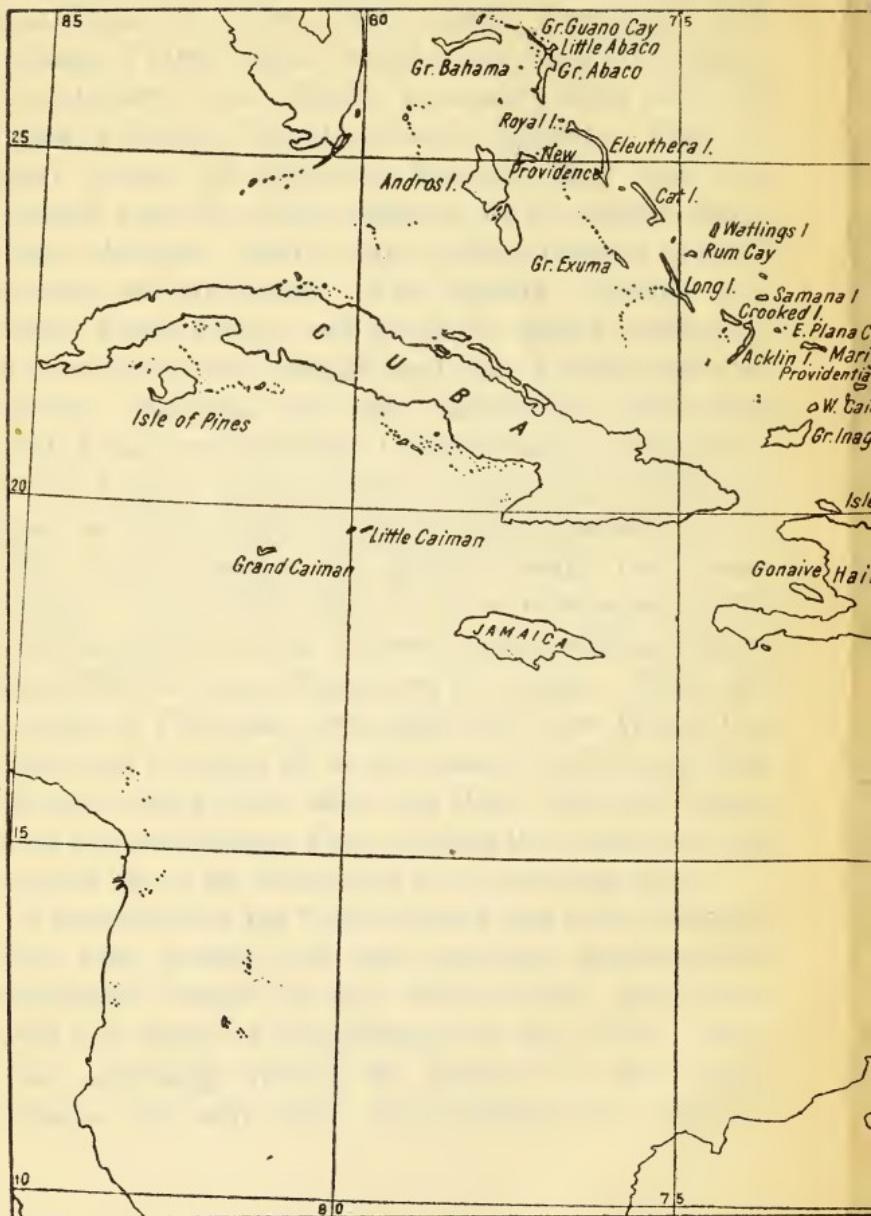
Early Indians

The Lesser Antilles were found to be occupied by a third group, the *Carib*, a fierce and bloodthirsty people whose continual piratical raids and notorious cannibalism struck terror to the hearts of their more peaceable neighbors. In spite of this, they seem to have practised agriculture, and were nearly as far advanced in the arts as the Taino tribes.

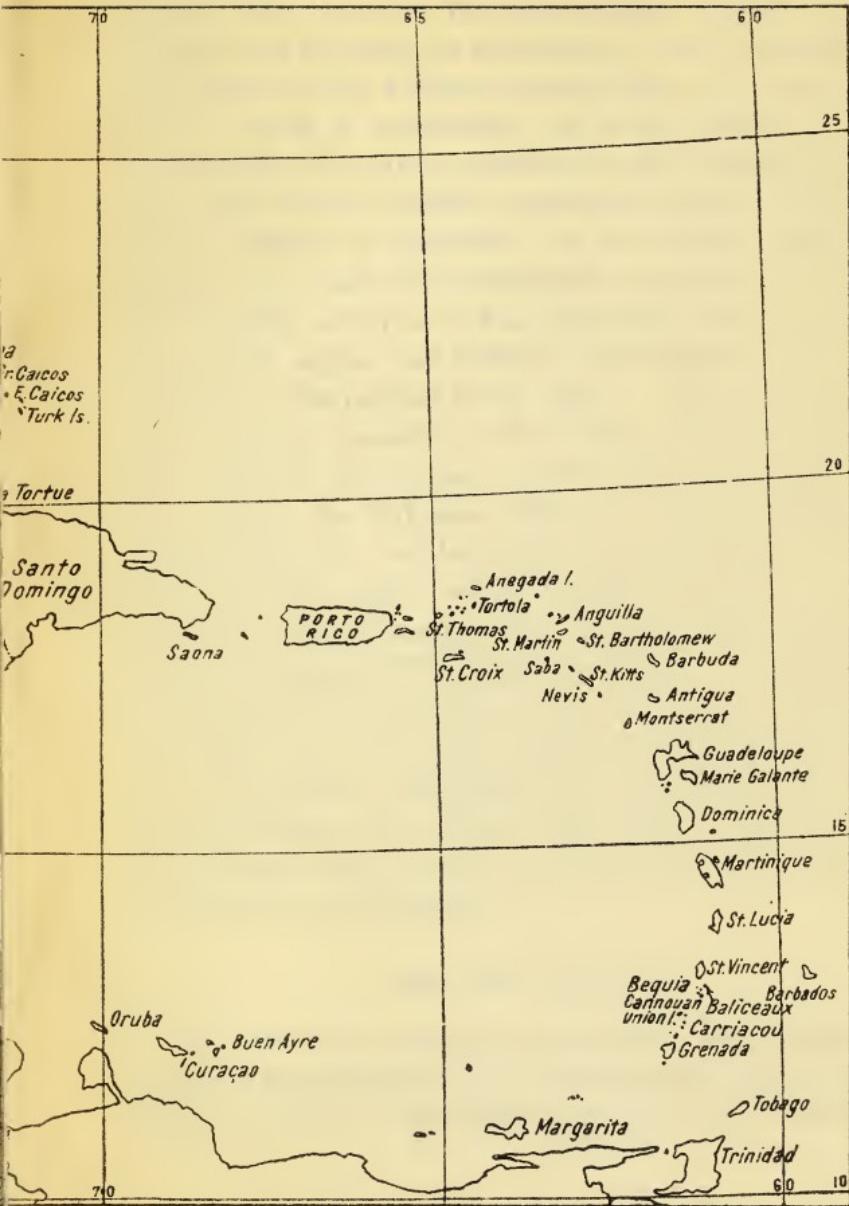
The origin of the Ciboney, apparently the earliest inhabitants of Cuba, Haiti (Santo Domingo), and perhaps of other islands, is lost in the mists of the past. As yet there is no evidence to connect them with the tribes of North, Central, or South America. There is every reason for believing, however, that both the Arawak and the Carib migrated to the islands from South America, where many tribes speaking related dialects are still found. The Arawak evidently left South America first, and gradually spread northward and westward, first through the Lesser Antilles, then the Greater, displacing the earlier inhabitants where such existed, and confining them to limited areas, as in Cuba. In the Greater Antilles they developed the culture we know as Taino; then a wave of Carib migration started from South America and spread through the Lesser Antilles. The Carib seem to have exterminated the Arawak bodily on some of these islands, while on others they killed the men and captured the women. When the caravels of Columbus first sighted the New World, the Carib had occupied all of the Lesser Antilles and were already raiding Porto Rico and Haiti, while the Taino were fast overrunning Cuba, driving the Ciboney to the western tip of the island and to the outlying keys.

The remains of the Taino-Arawak and of the Ciboney have been studied and their principal characteristics established; which has not, unfortunately, been done with any degree of completeness for the Carib. However, archeology reveals the presence of three great cultures, and only three, and Columbus and his suc-

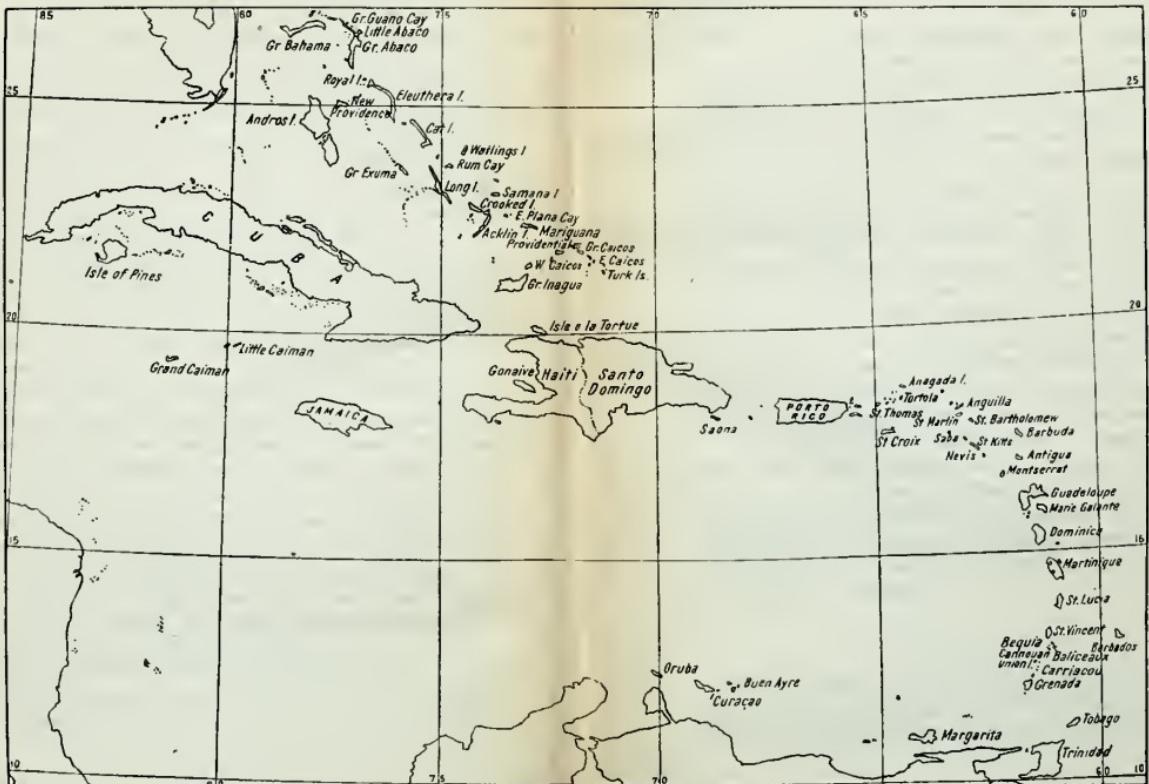




THE WE



INDIES



THE WEST INDIES

cessors found three kinds of Indians inhabiting the West Indies. Now, two of the archeological cultures have already been identified as belonging to two of the groups, the Taino and the Ciboney, respectively, so we can not go far wrong in attributing the third culture to the third group, the Carib, especially as the distribution of that culture in the Antilles corresponds exactly with the Carib habitat as described by the early explorers. Indeed the results of archeological research in all the West Indies, so far as it has progressed, bear out to a remarkable degree our historical knowledge of the distribution of the peoples in the region. Thus in Cuba we find abundant remains of the Ciboney and the Taino, while relics of the culture attributed to the Carib are rare indeed; the Bahamas, Haiti (or Santo Domingo), and Jamaica have yielded many Taino specimens, and a few of Carib origin, while future examination may reveal the crude remains of the Ciboney, whose presence in Haiti is suggested by historical evidence. Porto Rico yields mainly Taino artifacts, but Carib traces are fairly abundant; and the Lesser Antilles yield both Arawak and Carib objects—sometimes one, sometimes the other predominating, but mainly the latter. Much more information will be found in "Cuba Before Columbus," published by the Museum.

THE TAINO TRIBES

The term *Taino* has been adopted by archeologists as a general designation for the Arawak tribes of the Greater Antilles which had developed a peculiar culture of their

Meaning

own. The name is derived from their own language, and means "good or peaceable men," as contrasted with the warlike and cannibalistic Carib. They made their living largely by raising corn or maize, cassava, and

Food other native plants, and by fishing; but hunting, on account of the scarcity and the small size of most of the land animals, did not attain great importance. Most of

Weapons their fishing was accomplished with nets, while clubs, or *macanas*, and javelins were the favorite weapons for hunting and for war. The bow and arrow, though existing in some localities, seem to have been little used by these people. The canoes which furnished them transportation were dug out from single logs and were often well made and large. These were propelled with pointed paddles.

Houses Their houses were circular or square in ground-plan, neatly made of poles thatched with palm-leaves and *Utensils* walled with thin sheets of bark-like material from certain palm trees; their beds were hammocks slung from the rafters. Very characteristic were the stools or seats of wood, known as *duhos*, often beautifully carved in human or animal form and inlaid with shell, and their handsomely decorated food vessels of wood and of pottery. The boiling of food was done in earthen pots set directly over the fire, and baskets of various forms and sizes, hung from the rafters, contained surplus provisions, trinkets, and the like.

Cassava Peculiar graters made by driving innumerable bits of flint or other hard stone into the surface of a slab of wood were used for grating cassava-root into meal,

while for squeezing out the poisonous juices from the grated root to fit it for human food a basket press was employed. Both grater and press are still used by the related tribes in South America, while the presses are still remembered by surviving Cuban Indians, who have employed also the ancient type of grater until recently. After grating and pressing, the meal was made into thin loaves or cakes and baked on a flat circular griddle, made of pottery or stone, fragments of which are still abundant on the sites of the ancient villages.

For wood-cutting and similar purposes these tribes used hatchet-blades or "celts" of stone, some of them, especially the petaloid type, of unusual beauty in form and finish, mounted in club-like wooden handles; while fine cutting and carving of wood, bone, and shell were accomplished with knives, scrapers, and crude drills, rudely made from flakes of flint, their knowledge of flint-working falling far behind that of other arts. Gritty stones were used for smoothing the work when finished.

Clothing was little used, both men and women going practically naked but for tiny apron-like garments, such as are still worn by their relatives in South America; but a profusion of ornaments was employed, including beads and pendants of stone, shell, and bone, and circular earplugs of shell. Doubtless suitable seeds and nuts, and the feathers of tropical birds of brilliant plumage were also widely employed as personal ornaments, as in South America.

The esthetic sense of the Taino was best expressed in their carvings, especially in wood and shell, the Art

Stone
implements

Dress
and
Ornament

delicacy and symmetry of the work in some cases being unsurpassed in ancient America. The carvings in bone and stone are cruder, but still show a high degree of skill, as does much of the pottery. Objects may be decorated with purely geometric patterns, usually ovals or intricate scroll-like designs, or with effigies representing, in conventional form, men, animals, and supernatural beings, the latter especially being grotesque to the last degree.

Little of Taino religion or mythology is known, but there is historical evidence that these had reached a considerable stage of development, and that masks, images, and the like were widely used. Doubtless the stone "collars" and three-pointed *zemis* from Porto Rico, and the grotesque images and amulets found on other Taino islands, represent only a small part of their ceremonial equipment, the rest, of perishable materials, having been lost through decay.

THE CIBONEY

From historical and archeological evidence, the Ciboney, apparently the earliest inhabitants of Cuba, and probably existing on the neighboring islands as well, subsisted solely on natural products without any knowledge of agriculture. Various fruits were eaten in season, and palm-nuts stored away for times of shortage, while land-crabs and shellfish formed a great part of the everyday diet. Fish and the flesh of the jutia and other small animals were also eaten; and there is some evidence that the now extinct megalocnus, a huge

ground sloth, may have formed part of Ciboney diet in ancient times.

There is no definite knowledge of their weapons, but it is very probable that the bow and arrow were numbered among them. They seem to have made dugout canoes of ruder construction than those of the Taino. They occupied caves and rock-shelters wherever possible, and in such places their remains are frequently found; but also on occasion lived in camps in the open—probably in shelters of the rudest kind. Most of their deposits show no trace of pottery, but they seem to have had a little after contact with the Taino. However this may be, they made bowls of wood with the aid of fire, using gouges made of conch-shell to scrape away the charcoal as the work progressed, and turned conch-shells into serviceable bowls and dippers by pecking out the interior whorls and the core. The stone mortars and pitted hammerstones employed by the Ciboney were similar to those found throughout eastern North America, but their work in flint was very crude, consisting mainly of flake knives and rough scrapers. Axes or celts of stone and shell occur, but are rare and differ in form from Taino types.

We know nothing of their dress, or lack of it. Their ornaments were disc beads fashioned of shell or of fish vertebræ, and pendants made from waterworn bits of shell or stone, and of sharks' teeth, perforated for suspension.

The only specimen known that may possibly illustrate the decorative art of the Ciboney is a carved

Mode
of
life

Utensils

Stone
tools

Ornaments

wooden baton found in the mud of the bottom of a lake in western Cuba. The design consists entirely of dots and incised intersecting straight lines, and although neatly made, cannot be compared with the products of Taino art. It may have been used in ceremonies.

Nothing else relating to their ceremonial or religious life has apparently survived, unless the Ciboney may have been responsible for the exceedingly rude faces pecked on stalagmites in certain Cuban caves.

THE CARIB

As before stated, the Carib culture has not yet been fully worked out and defined, but we can be fairly certain that in general features (excepting always their piratical raids and their cannibalism, both characteristically Carib) their mode of life, dwellings, hammock-beds, use of cassava, and the like, were quite similar to those of the Taino.

The Carib were expert bowmen, however, which can not be said of the Taino, and the archeologist observes that they were much more given to painting their pottery than were the Taino, especially in red, black, and white; that the forms were somewhat different, and that the effigies used as handles and decorations for the earthenware vessels have a fat, bloated look not seen in Taino ware. The Carib, moreover, preferred celts of ordinary type, or notched or grooved stone axes, or axes of fanciful form, to the petaloid celt-axe characteristic of the Taino; in fact, when petaloid celts are found on Carib islands they are probably either relics of the original

Stone tools

Arawak occupancy or were brought home as trophies by Carib raiders from Taino territory.

Carved wooden stools, idols of stone or wood, carved wooden platters, and stone collars, all familiar Taino artifacts, do not seem to have been made by the Carib, and are seldom seen in the Lesser Antilles, although the three-pointed *zemis* may have been occasionally imitated by them.

So few beads, amulets, and other articles of personal adornment appear in our collections from most of the Carib islands that one would naturally infer the Carib used few such articles, or that they made them of perishable materials. However, a collection recently obtained from the island of Montserrat seems to disprove this theory, for it includes many beads of semi-precious stones such as amethyst and carnelian, and pendants made of hard, jade-like materials. It is possible, therefore, that either collectors have overlooked such things on other Carib islands, or that Montserrat, in Indian days, was a special trade center for gems.

Ornaments

CUBA

(Cases 316 B C, 317 A-C)

In Cuba exploration by expeditions from the Museum thus far has revealed two principal cultures: (1) that of the primitive cave-dwelling Ciboney who were apparently the earliest inhabitants and lived in early times from one end of the island to the other; (2) that of the more advanced Taino who were long established only

Ciboney
and
Taino

in the eastern end of the island, although just before the conquest they had overrun most of it. Thus it happens that although crude Ciboney specimens may be found in almost any part of Cuba, the remains of the Taino may be encountered in quantity only in the eastern portion.

Most of our Ciboney specimens were found buried in the floors of the caves where these people once lived, although some were discovered in the refuse-heaps marking their camp-sites. On the other hand, most of the Taino material was exhumed from village-sites, and only occasional specimens—usually fine objects hidden for safekeeping—were found in caves.

Pottery Two full case panels and parts of two more are devoted to one of the most characteristic products of the Taino—their pottery. The range of form and design used by the Cuban bands is well illustrated, especially the almost endless variety of grotesque heads and figures used as handles for the vessels.

Stone objects Equally characteristic of the Taino are the beautiful petaloid celts, of which a representative series is displayed, besides celts of forms which might have originated anywhere, and various forms of hammerstones, pestles, and other stone implements. The making of celts is illustrated by a series showing them in all stages of manufacture, together with the hammerstones used to batter and grind them into shape. The use of such celts as axes (hafted like the specimen from North Caicos, Case 319 B) is illustrated by a cut stick forming part of a rack in a burial cave. Also of stone are various fetishes,

amulets, and beads, some of them beautifully made, and a few pitted stones, mortars, cassava griddles, weights, and the like.

Another characteristic Taino art is illustrated by specimens of woodcarving, including a paddle, part of an effigy representing a cayman or crocodile, and a beautifully carved platter, all found hidden in caves for safe-keeping. The last two of these have evidently been inlaid at some time with mother-of-pearl.

Wood-carving

The shell carving of the Taino was often excellent, as may be seen by the amulets and ornaments in the Shellwork exhibit, while a series of tools and unfinished objects show how the work was done..

Objects of bone are not so abundant, but in the collection exhibited some of the pieces (especially the part of a bone platter and the fragments of spoons and swallow-sticks) exhibit considerable skill.

Bone

The coming of the Spaniards and the beginning of the written historical period in general are illustrated by Spanish objects two specimens only—a rusty iron spear-head and a crumpled piece of sheet-copper.

The shell vessels, shell gouges, mortars, and pitted hammerstones, characteristic of the primitive Ciboney from both ends of the island, may be seen in the last panel, together with their beads and simple ornaments, their rude flints, and a few examples of their woodwork. Of the last, the baton with a carved handle is especially worthy of notice, as perhaps the only surviving example of Ciboney decorative art. This, with several other wooden objects, was found in the muck in the bottom of a lake in Pinar del Rio.

Various
Ciboney
artifacts

Pottery

A small number of potsherds exhibited in this section, found in a few Ciboney caves, may indicate that in later days the primitive Ciboney people acquired some knowledge of the potter's art, perhaps from the invading Taino.

Carvings
on
stalagmites

Of unknown origin are the crude faces and figures on exhibition found carved on stalagmites in certain caves. They were probably used ceremonially, but whether the Ciboney or the Taino made them is impossible to say, although their rudeness would suggest the former.

JAMAICA

(Case 319 A-D)

The upper two shelves of Case 319 and the space under it are devoted to a collection from Jamaica, all of which, Various objects except perhaps several large stone mortars, and the three-legged grinding stone or seat, seems to be easily identified as Taino. This seat may have been imported from the mainland; the mortars are of unusually large size, but they resemble some Cuban Ciboney mortars in form.

Pottery
and Stone

An examination of the pottery reveals the fact that it bears a strong similarity to Cuban Taino ware, although somewhat simpler and cruder, on the whole, in form and design; the hatchets and ornaments are clearly similar to corresponding objects in Cuba.

Difference
in artifacts

Perhaps the slight inferiority noticeable in Jamaican Taino remains, as compared with those of the other islands, may be due to the fact that Jamaica is somewhat

isolated, and was not in continual touch with the specialized development of Taino culture in Cuba, Haiti (Santo Domingo), Porto Rico, and the Bahamas.

The explorations by the Museum expedition to this island have been described in "Certain Kitchen-middens in Jamaica."

BAHAMAS

(Case 319 A B)

A glance at the collection from the various islands of the great Bahama group lying north of Cuba, the names of which may be found on the accompanying map, shows that their culture was indistinguishable from that of the Cuban Taino.

Taino
culture

Here we have the typical Taino petaloid celts, decoration on pottery, and amulets, some of the latter better than any we have from Cuba, and an excellent series of typical wooden seats, or *duhos*, two of them adorned with heads and one with intricate carvings like those of the Cuban wooden platter.

Character
of
objects

Best of all is a fine petaloid celt with its wooden handle still intact, found in a cave on North Caicos island. That this was a usual method of hafting these stone axes may be seen from a monolithic hatchet from Grand Caicos carved from a single piece of stone to represent a petaloid stone celt in a similar wooden handle. A similar but ruder one was found in Providenciales.

Celt with
handle

Suggesting the presence of the Ciboney in the Bahamas are several shell gouges; and perhaps further investigation will establish the fact of their presence in these

Ciboney islands before the coming of the Taino. The existence
influence of a third and as yet unknown culture is suggested by
the finding, in the Caicos group, of some extraordinary
shell-tempered potsherds, highly decorated with incised
Pottery straight lines and angles, unlike anything found else-
where in the West Indies.

SANTO DOMINGO

(Cases 318 A-D, 321 A)

The island of Santo Domingo, anciently called Haiti,
Character and now occupied by the republics of Santo Domingo
of objects and Haiti, although only partially explored, has yielded
a large collection consisting, for the greater part, of
pottery and stonework, both to a large degree obviously
of Taino origin and similar to the specimens found in
Cuba and the Bahamas.

Some of the pottery is better made than the average
Pottery Cuban ware, and there is an even greater variety in
form, yet the resemblance is very strong indeed. Special
attention is called to the heart-shape water-bottles, a
type not seen in Cuba at all, and the hollow human
figures of earthenware, perhaps used as idols, of which
only fragments were found in Cuba. Stamps for apply-
ing paint, made of earthenware, and in one case of stone,
are abundant on this island.

In stonework we have the little figurines or amulets,
the beads, the pestles, and the petaloid celts characteristic
of the Taino culture in Cuba, but in addition we find
Stonework *zemis*, or "three-pointed fetishes," in the form of the

human breast, which are thought to represent the God of Food or of Fertility; and the curious massive objects of stone, shaped like horse-collars, also thought to be fetishes. These last two classes of objects are especially characteristic of the Taino bands of Porto Rico.

Other noteworthy specimens in stone are a unique dagger or club, a carving representing a monkey, once apparently attached to a staff or handle of wood, a large flint implement, and two T-shape stones of unknown use.

Exhibited also are a few objects of shell and bone suggesting those of Cuba, and a small but interesting wooden idol, all typically Taino.

Shell, Bone,
Wood

Carib culture is represented in the collection from this island only by a few axe-heads and perhaps the T-shape stones, and the Ciboney not at all; but further exploration will probably supply specimens of both, especially the latter.

Carib
objects

The results of two expeditions to this island have been published by the Museum.

PORTE RICO

(Cases 321 B, 322 A)

In the Porto Rico exhibit are seen the massive stone collars and the mammiform *zemis*, before mentioned as being the most characteristic of Taino products for this island, although found occasionally in Santo Domingo, and, rarely, in the Lesser Antilles.

Collars and
Three-
pointed
stones

As before stated, the *zemis*, or three-pointed stones, most of them made in the form of the human breast,

probably represent the God of Food or of Fertility, or maybe Mother Earth from whom the tribes of men draw their sustenance as the infant does from its mother's breast. They seem to have been considered powerful in producing large crops of yuca or cassava.

It is thought that the curious objects of stone resembling horse-collars, like the tri-pointed stones, were *zemis* or fetishes used in tree-worship, and that the earliest forms were of wood, made by bending a root or a pole into the form of an oval hoop and fastening the ends together. A more highly developed form was apparently compound, combining a wooden hoop with a so-called "elbow-stone," of which some specimens are exhibited, while the final stage was the collar, made entirely of stone, but still showing in many cases an attempt to represent characteristics of the wooden original.

Much of the pottery is thoroughly Taino in character
Pottery and might have come from Santo Domingo or Cuba, but Carib influence is seen in the red-painted ware and in the forms of some of the grotesque heads used as handles for vessels.

Most of the stone axes in the collection from this island
Stone objects are either typical Taino petaloid celts or celts of more widely distributed forms; the stone beads and the like resemble those of Cuba. Especially worthy of note is the
Wooden seat *duho*, or wooden seat, the back of which is higher than usual, and a tiny *duho* of stone made to represent the wooden type.

No trace of the Ciboney culture is seen in the collection, unless the few rude celt-like implements of shell may be attributed to it.

VIRGIN ISLANDS

(Cases 322 B, 324 B)

The Virgin Islands of the United States, including St. Thomas, St. Croix, St. John, and Tortola, have yielded to a Museum expedition a collection illustrating both the Arawak and the Carib cultures, the former doubtless representing the earlier occupancy, as the Carib seem to have been in full possession at the time of the Discovery. The rather crude character of the Arawak pottery would indicate this, too—it seems to represent a period before the Taino culture had attained the height of its development. Much of the pottery found on these islands is so plain, however, that it lacks distinguishing features serving to determine its origin. The distinctly Carib ware is recognizable as usual by its decoration in red or in red and white, and by the form of the grotesque heads. Especially interesting are several massive Carib bowls showing painted decoration on the inside.

One Taino stone collar was collected on St. Croix island, but this was probably a trophy from Porto Rico brought home by Carib raiders; and there are also two small rude mammiform *zemis* of Taino style. The stone axes show both the grooved and the notched forms of the Carib, the fine petaloid celts of the Arawak, and a number whose origin is doubtful.

There are several objects of bone in the collection also—one of them the handle, carved in the form of a man, of some implement, probably a “swallow-stick,” such as was thrust down the throat in certain ceremonies.

Carib and
Arawak

Pottery

Stonework

Bonework

This has inlaid shell eyes and mouth, and is an excellent specimen of Taino art.

The Ciboney are not represented in the collection, unless it may be that they made the shell celts displayed. It will take further exploration and study to determine whether this was the case, or whether the implements in question were the work of the Arawak or the Carib. It seems probable, however, in view of their increase in number as we pass down through the islands, that they are of Carib origin.

Further information may be found in "Archeology of the Virgin Islands," published by the Museum.

OTHER ISLANDS

(Case 324 A B)

From Anguilla and St. Eustatius the collection is small and has little character. From St. Kitts and Nevis most of the axes and pestles have a Carib appearance. On the other hand, we see two decidedly Arawak petaloid celts in the Antigua collection, and the four objects from St. Martin include one fine Taino *zemi*.

GUADALOUPE AND DOMINICA

(Case 324 A)

The larger collection from Guadalupe, mainly stone axes, consists on the whole of distinctly Carib types; and here we first note the ornate forms of stone axe-heads so highly developed farther south; and the same may be said of the Dominica collection. In this the

only object suggesting the possibility of Arawak origin is a solitary three-pointed object resembling in a general way a Taino *zemi*. This, however, is provided with the groove around the base which characterizes most objects of the kind found on Carib islands, and probably represents a Carib variant of the *zemi* idea.

MARTINIQUE

(Case 324 B)

The small collection from this island shows the Arawak petaloid celt and the Carib grooved or notched axe side by side.

SANTA LUCIA

(Case 325 B)

From Santa Lucia the collection consists mainly of stone axes, and ornate stone forms of unknown use. These are mainly pure Carib in type, except a few fine petaloid celts which might have, and probably did, come from Santo Domingo or Cuba, captured by Carib raiders.

MONTSERRAT

(Case 326)

The collection from the island of Montserrat is remarkable for its beads and ornaments of semi-precious stones, such as amethyst, jade, carnelian, turquoise, and rock crystal, of especial interest being the jade amulets in the form of frogs, and the pendant carved of cannel

Ornaments

coal to represent a human head. While most of the materials do not occur naturally on Montserrat, it is plain that at least a part of these articles were made on the island, for they are found in all stages of manufacture. How the Carib could have drilled such slender holes through such hard materials as amethyst, with the tools available to them in pre-colonial times, remains a mystery; but that they, and not some more advanced people from South America, did the work seems probable from the fact that nearly all the other archeological specimens found on Montserrat, both pottery and stone-work, are typically Carib in style.

ST. VINCENT

(Cases 325 A B, 326, 327)

Carib culture Pottery Stonework

It is not until we reach St. Vincent that the remains of Carib culture at its highest stage of development are found. Here we find the typical massive though usually well-made pottery, the bloated appearance of the grotesque heads used as handles for the vessels, the extensive use of red, white, and black paint in decorating—in fact, all the distinguishing characteristics of Carib ware.

The stone implements, mainly axes, are equally typical of Carib culture, for the greater part notched or grooved, and some of them ornamented with decorative protuberances of varying forms. One especially ornate specimen, doubtless intended for ceremonial use, shows a carved openwork decoration on the poll, and others, effective designs on the blades. A handsome decorated dish of stone also figures in the collection.

There are also a number of crescent-shape, hook-like, and fanciful forms of stone to which no practical use can be assigned, although they are made of material hard enough to stand service as implements. Also exhibited (Case 326) are fanciful forms in stone too soft to have been of practical service for any purpose. Some of these represent the well-known axe-forms of the island, some the stone dishes, while others are entirely fanciful. They were found for the greater part in a single locality, and, it is thought, formed part of a ceremonial deposit of some sort.

Before leaving the subject of stone objects attention is called to the large mortars and grinding slabs, and the huge axe-heads too large for practical use, all exhibited beneath Case 327; also to the beads and amulets of stone which in most cases differ markedly from those of the Taino.

The only objects suggesting Taino styles in the collection are a few fine petaloid celts, perhaps brought home as war trophies. Some small three-pointed *zemis* show the groove around the base, characteristic of Carib objects of this class.

GRENADINES

(Case 328)

The collection from the Grenadine islands, including Baliceaux, Cannouan, Mustique, Bequia, Carriacou, Union I., and Little Martinique, shows practically the same culture as St. Vincent, for the greater part typically

Carib culture

Carib. Some of the three-pointed *zemis* have a Taino look, however, and there are a few petaloid celts.

Cannouan The island of Cannouan, moreover, has yielded some exceedingly rude axe-like implements that suggest the presence of another and very primitive culture which should be further investigated.

Carriacou Special attention is called to the curiously grotesque water-bottle of pottery from the island of Carriacou. Shell celts seem quite numerous in these islands, but their origin is as yet uncertain.

GRENADA

(Case 329 A B)

Carib culture In Grenada the Carib culture is found still in its most exuberant form, with axes and pottery, and three-pointed stones with a basal groove, exactly as in St. Vincent; and here too are found abundant shell celts and occasional highly polished Taino petaloids. As in Cannouan, there are a few exceedingly crude axe-like implements suggesting a former primitive culture.

Another noticeable feature is the presence of several true adze-blades of stone with one flat and one convex side, an implement seen only occasionally on other Carib islands and not at all in the Taino district.

TRINIDAD

(Case 330 A B)

Character of objects In Trinidad, the last of the chain of islands and nearest the South American coast, we still find Carib pottery

at its highest point of development, but our collection contains fewer of the typical Carib axes, and a new form, but rarely seen in the other Carib islands, appears here—an axe with two sharply cut notches near the poll—a type characteristic of Venezuela and the Guianas. Attention is called to the excellent series of complete or nearly complete Carib pottery vessels, especially a unique bird-shape water-bottle.

The results of two expeditions to this island have been published by the Museum.

TOBAGO

(Case 329 C)

One would expect the island of Tobago, lying fairly near to Trinidad, to yield a full series of Carib artifacts, but such is not the case. The collection, on the contrary, comprises a large number of celts, including the petaloid, with very few axes, and one grooved three-pointed stone, recognized as Carib, and no pottery at all, while a plummet-like stone implement, not seen elsewhere in the islands, appears.

Stone
objects

BARBADOS

(Case 329 C)

The outlying island of Barbados, lying considerably to the eastward of the main archipelago of the Lesser Antilles, has yielded an unusually large collection of shell celts and gouges, some crude pottery, most of which is Carib, but few pieces of which appear to be Arawak,

Carib and
Arawak
objects

a typical Carib "hookstone," three Carib axes, and four celts, all of which last might be, as one certainly is, of Arawak origin. It is probable, therefore, that both Carib and Arawak occupied the island at different periods, but to solve this and other West Indian archeological problems, a great deal of further exploration and study will be needed.

EAST HALL

COSTA RICA

(Cases 334 A-D, 335 A B D E G-L, 336 A B, 337 A-C,
338 A B)

THE aboriginal inhabitants of Costa Rica belonged to three linguistic groups. The greater part of the country was inhabited by tribes speaking various dialects of Chibchan, a language which once extended from Colombia to Nicaragua. In Costa Rica it was spoken by several tribes in the south, known collectively as Talamancan. In the north the principal Chibchan tribes were the Guetar and the Corobici. In the extreme southeastern corner lived the Sigua, who told their Spanish conquerors that, having come to collect gold for Montezuma, they had settled there when they heard of the overthrow of that monarch by Cortés. Whether or not this tale be true, several early documents record the fact that they spoke a Nahuatl dialect. In the extreme northwest, around the modern town of Bagaces, lived another small group of Nahua-speaking people; they were surrounded by Chorotegans, of whom the most important tribes were the Orotiña, Nicoya, and Orosi. The Chorotegan tongue is found also in Nicaragua, Honduras, and southern Mexico.

Unfortunately no detailed and systematic description of the aborigines of Costa Rica exists, the references to them in early documents being meager. Their houses in general were built of heavy wooden frames covered with

Various
tribes

General
customs

thatch. The Chibchan tribes lived in large circular houses which were occupied by several families, hence a small village might consist of only one house with thirty or forty occupants. The Chorotegan tribes had larger rectangular houses surrounding a plaza, on the sides of which were the temples and the residence of the chief. Agriculture was practised everywhere, and early accounts speak of plantations of maize, cotton, and cacao on land which today is dense jungle except for the United Fruit Company's clearings. Domestic animals included the dog, turkey, and tapir, the last being raised and perhaps bred in captivity on the Atlantic coast. Hunting supplied such animals as the peccary, deer, rabbit, armadillo, pisote, tepisquintli, and others.

The dress of the Chorotega is described as a breech-cloth or skirt, and a sleeveless jacket made of cotton.

Dress

The Chibchan tribes wore similar garments made either of cotton or of bark cloth. Examples of these, made recently by Talamancan Indians, are displayed. The Guetar women seen by Columbus wore their hair short, while the men had a long braid bound about the head. The Chorotega had long braids of hair hanging over the ears, except the warriors who had defeated an enemy in single combat; these wore merely a short tuft on the top of the head.

Hairdress

The chief manufactures were cotton cloth, gold ornaments, mealing-stones, and pottery. Cotton cloth

Manu-

factures appears to have been well made in all parts of the country, but that from the Gulf of Nicoya was especially prized by both the natives and the Spaniards, owing to the dye extracted from a shellfish (*Purpura*

Cotton

patula), which resulted in a rich, soft color like Tyrian Dyeing purple. The goldwork is practically indistinguishable from that of Chiriquí, exhibited in the West Hall.

Goldwork
331 C

The collections from Costa Rica were formed by Minor C. Keith, Esq., who generously presented to the Museum the bulk of his large gatherings, and the objects gathered by Mr. Alanson Skinner from the excavation of several sites in the Atlantic highland region. Only a small part of the total is displayed. For the specimens illustrating the relatively simple culture of the Bribri, see page 137.

Bribri
objects
336 A B

The archeological objects in the other cases devoted to Costa Rica were obtained chiefly from tombs. The Guetar tombs are rectangular stone enclosures covered with flat slabs. Burial accompaniments include the personal ornaments of the departed and such household utensils as pottery vessels, mealing-stones, etc. Interments were made under the house floors, and their presence today is often marked by circles of fallen stones against what remains of house walls. At some of the larger sites are rectangular or circular mounds which doubtless served for religious ceremonies, as the large stone idols exhibited were placed on the edges of their flat summits. The Chorotegan grave is usually not surrounded by a tomb, but is marked by a small superficial heap of stones. Urn burial, commonly found on the Pacific coast of Nicaragua, was practised in parts of the peninsula of Nicoya.

Mounds
334 A C

Some of the larger forms of stone objects recovered from graves are shown. On the top shelves of the case are metates or mealing-stones, and stools which they closely resemble. In general, the circular or four-legged

Idols
334 A C

Large stone
objects
334 A-C

forms are from the Atlantic coast, while the three-legged variety is from the Pacific area. Small stone statues and stone heads are common.

Jade
335 H I Objects of jade and greenstone are found in northern Costa Rica, especially in Nicoya. These pieces are sometimes of great beauty and exhibit high technical skill in their making.

Pottery
335 B In the northwest are related to those of Nicaragua.
337 A-C In the central highlands the Guetar graves contain a
338 A B polychrome ware, several types decorated with patterns painted in a single color, and a large group embellished with ribbons and buttons of clay. Southern Costa Rica produces ceramic types scarcely distinguishable from those of Chiriquí in Panama.

Status of
Costa Rican
art Such, then, is the archeology of Costa Rica. For the layman its main attraction lies in the jade and in the more exotic objects of stone and pottery. For students, however, the chief interest centers in the fact that Costa Rica exhibits the transition from purely Central American culture to purely South American culture. The Costa Rican Indians, indeed, created no outstanding art of their own, but were content to borrow from their more civilized neighbors to the north and south.

PANAMA

(Cases 335 C F G, 339 B C, East Hall; 331, West Hall)

Chiriquí
art THE province of Chiriquí in the Republic of Panama, geographically a part of the North American continent, is particularly rich in objects of ancient art, derived

almost exclusively from graves and appearing to have been manufactured largely for mortuary purposes. These objects show that the ancient people were skilful in the manipulation of clay, stone, copper, and gold. It is apparent that in many respects the culture may be connected with that of the adjacent regions to the north in Costa Rica and Nicaragua, yet in other features it is remarkable for its individuality.

Ornaments of stone were seldom used, but those of gold and copper were common. The gold objects were probably not mere personal ornaments, but were of a fetishistic nature. No weapons or utensils of metal have been found. The ornaments of metal were cast in molds, and gilding, or at least plating, was practised. The process of alloying also seems to have been understood. Only a few specimens of a large collection of gold objects are exhibited.

In ceramic art the ancient people of Chiriquí reached a high plane of excellence, their pottery vessels being noted for perfection in technic, high specialization in form, and the conventional use of a wide range of decorative motives. The ornamentation applied in color, modeling, or incising, originated in life forms of animals (among which the armadillo, alligator, and octopus are prominent), which gradually were modified into conventional decorative devices, such as the meander, scroll, fret, etc. It has been possible to classify the ware into well-defined groups, each characterized by a typical form of decoration. The three main groups consist of unpainted, painted, and incised wares, the first two being divided respectively into four and ten

Metalwork
331 C
West Hall

Pottery

Biscuit sub-groups. Of the unpainted group, the "biscuit" ware or armadillo ware is the most numerous and interesting, and in some respects it is almost if not quite the finest ware produced in aboriginal America. In the painted

^{339 C} Lost-color ware
^{339 C}

group the lost-color or negative-painting ware is the most numerous and important, and suggests contact with South America, as this process was widely employed in the inter-Andean region of Colombia and Ecuador. The characteristic decoration was produced by first covering the vessel or object with a red or a cream slip, or both; then the design was painted over the slip with wax, and the entire surface covered with black pigment; the vessel was then heated, by which process the black was removed from and with the waxed portion, and the design came out as a negative painting on the ground color.

^{335 C} Stonework

In stonework the elaborately carved objects in the form of pumas exemplify a high degree of skill in fashioning what have been usually classed as metates or mealings-stones; but the researches of the Museum have shown that these stones closely approach the wooden seats, or *duhos*, still used in some parts of South America.

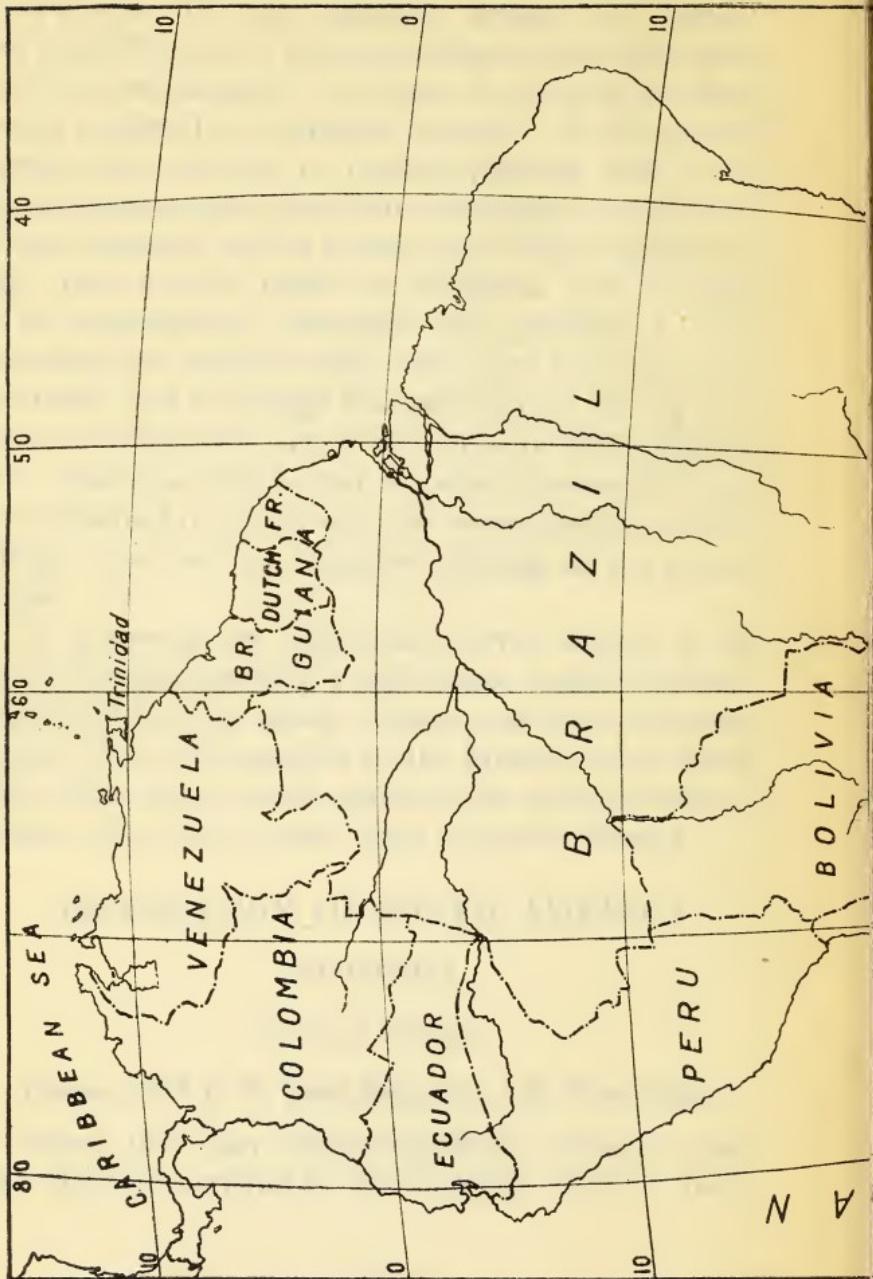
ARCHEOLOGY OF SOUTH AMERICA

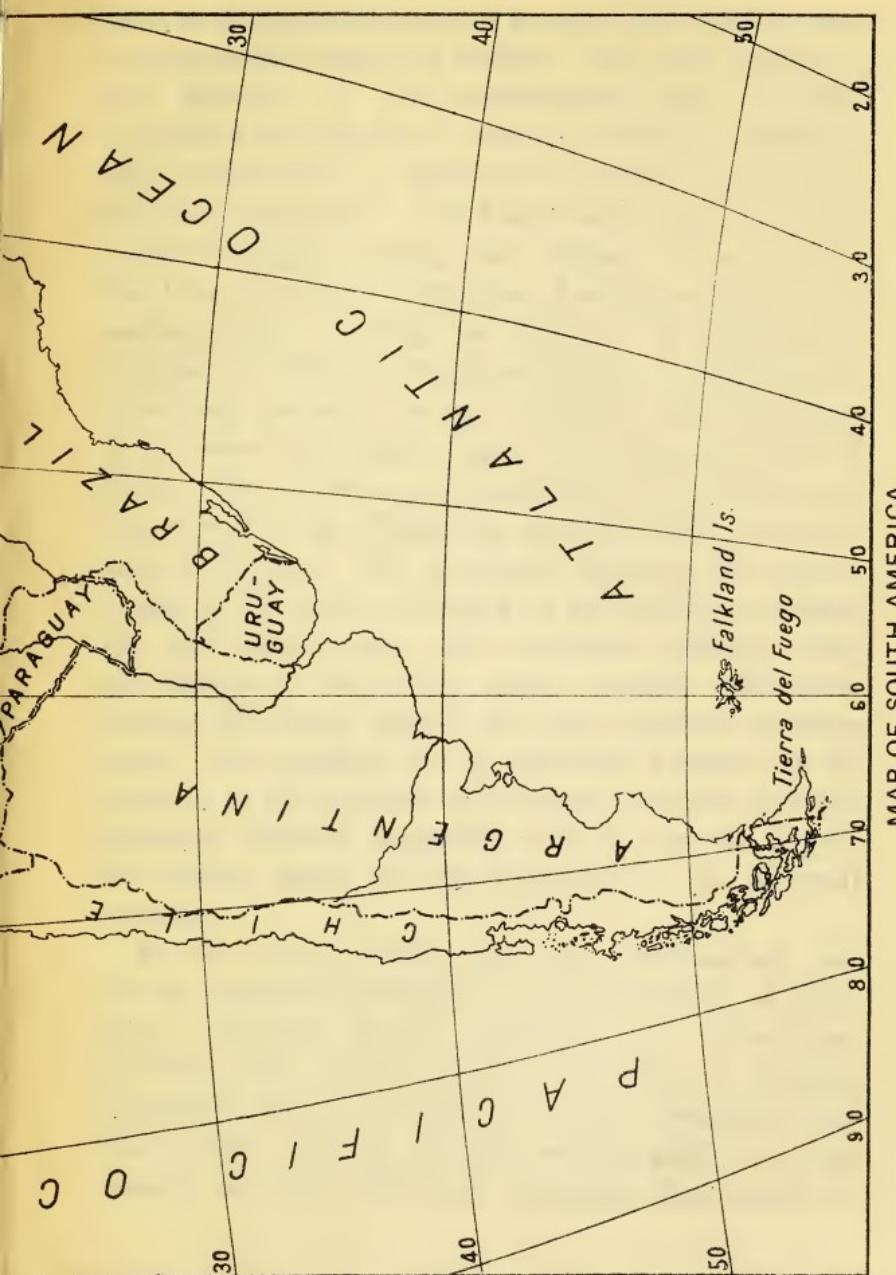
COLOMBIA

ANDEAN REGION

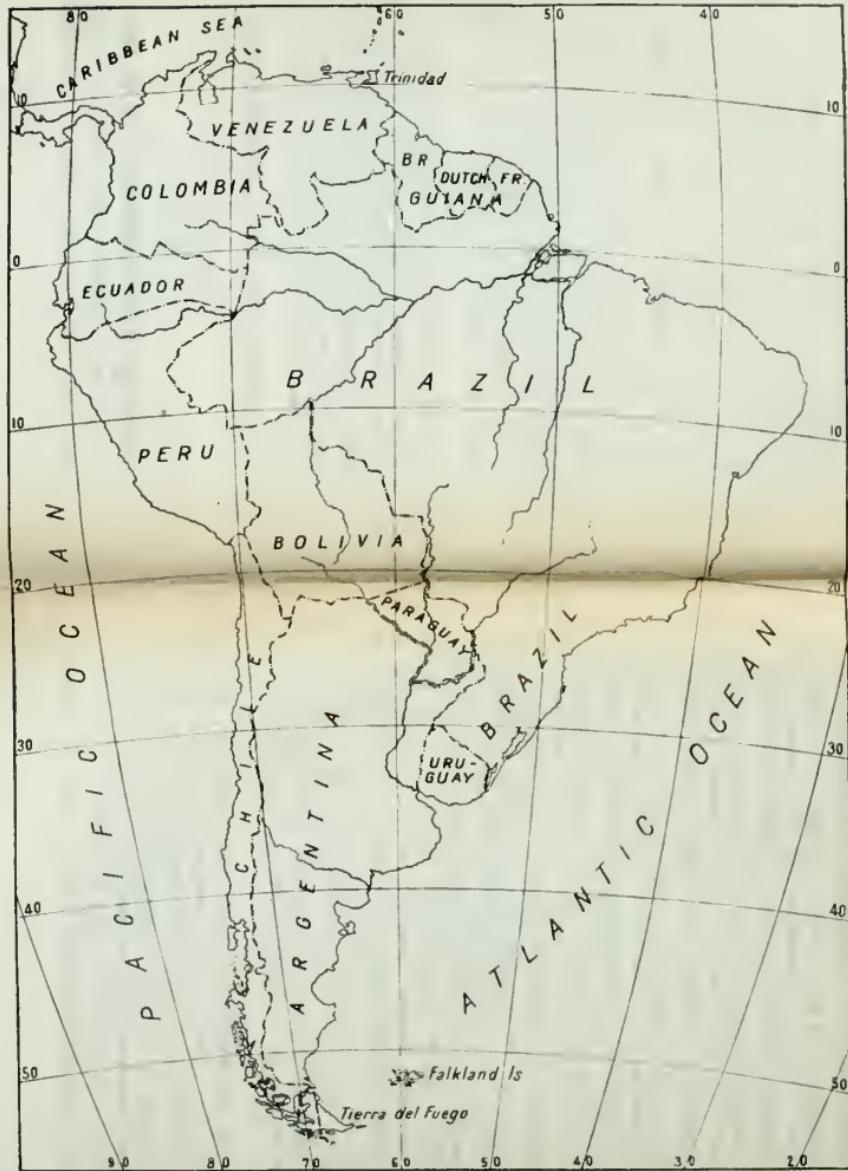
(Cases 339 A D-F, East Hall; 331 C D, West Hall)

^{Physical} features AMONG the many tribes inhabiting Colombia when the Spaniards arrived in the sixteenth century, there





MAP OF SOUTH AMERICA



may be distinguished several groups which had attained a considerable degree of culture. The great geographical diversity of the northwestern part of South America has resulted in a variety of climatic conditions, and consequently in differences of native development due to environment. The Andes here is split into three parallel ranges, creating two extensive river systems, the Cauca and the Magdalena, flowing northward and uniting before reaching the Atlantic. In northeastern Colombia is the great highland region of Cundinamarca extending eastward toward Venezuela, and northward is the snow-clad coastal range of the Sierra Nevada de Santa Marta, close to and paralleling the sea from near the mouth of the Magdalena eastward over the peninsula of Goajira. The diversified slopes of the western range of the Andes extending to the Pacific are fringed for the greater part with mangrove swamps, while the slopes of the eastern range, covered with dense forests, fall away toward the great Amazon drainage basin. As complex as the physical features of the country is the problem of the great number of tribes speaking different languages and of varying degrees of culture, found by the Spaniards in the sixteenth century.

In the Cauca valley, and the northwestern part of the republic throughout the Department of Antioquia, numerous ancient settlements are encountered, and from the well-like graves, called *huacas*, immense quantities of pottery vessels and gold ornaments have been taken. Indeed, so much worked gold, in a great variety of forms, has been unearthed that search for

Indian graves by the natives has long been an industry in the Cauca valley and in other parts of the country. Yet, although the general character of the ceramic and goldsmith's arts, due to this activity, is fairly well established, the great field still remains to be investigated archeologically.

The pottery vessels and human figures exhibited
Quimbaya culture are from the Department of Caldas, Cauca valley,
Pottery 339 A D-F and are now definitely known to have been the work
Goldwork 331 C D of the extinct Quimbaya tribes, whose goldsmiths
West Hall were the most skilful of all the ancient peoples of Colombia,
taking rank with the Mexicans and the Peruvians
in their product. They fashioned large vessels and
canisters, and hollow human figures of beautiful work-
manship in almost pure gold. Their pottery is of a
distinctly local type; deeply incised or cut designs are
common, and the presence of lost-color or negative
painting in the decoration of many of the receptacles
and figures suggests influence or contact from both
Panama and Ecuador, and even the Peruvian coast.
The modeling of the clay figures, some of which, made
solid, were used as idols, and others hollow to serve as
receptacles, does not equal that of their vessels and
figures in gold; in fact, as a rule they are decidedly
crude. Spindle-whorls of pottery and of stone have
been found abundantly in various parts of Colombia,
their beautifully engraved designs being characteristic
of the respective localities. Some of the whorls served
also as rattles. Stamps and roulettes of various shapes
for ornamenting pottery occur.

A unique specimen is a stone bark-beater with handle, the only one from South America that has come to our notice. Such implements are found in Middle America, and many have been discovered in Oaxaca, Mexico. As the custom of making bark cloth prevailed in many parts of South America, it is probable that the beaters were generally made of wood, and hence have disappeared through decay.

Bark-bearer
339 D

Another region of Colombia once thickly inhabited is that of the valley of the Rio Sinu in the Department of Bolivar, in the extreme northwestern part, near the Isthmus of Panama. From the time of the conquest to the present, vast quantities of gold objects have been found in the ancient graves, some of the pieces being very large. It seems probable that more worked gold has been found here than in any other part of aboriginal America.

Sinu
valley

From the extensive region occupied by the Chibcha of the highlands of Cundinamarca the Museum has no Chibcha adequate material, other than gold ornaments, to illustrate one of the reputed highest cultures in South America.

In the upper Magdalena valley, near the village of San Agustin, are the remains of a culture which seems to have been confined to this restricted area. The antiquities are characterized by many massive stone sculptures of a type not found elsewhere. This isolated development of stone-carving marks one of the five small areas yet known in South America where that art flourished, namely, Manabí, Ecuador (represented in the Museum by the unique collection in the middle

Stonework
(Middle
of hall)

of the hall), Chavin in northern Peru, Vilcashuaman in southern Peru, and Tiahuanaco in Bolivia.

Tayrona
culture
339 A

In the Santa Marta region, from the mountains to the Atlantic coast, the Tayrona, now practically extinct, formerly held sway. Some authorities assert that they were related to the Chibcha, while others include them as members of the Carib stock. Little is known of Tayrona culture, but from the few antiquities available it is certain that they were among the most accomplished workers in clay of ancient Colombia. Some whistles and figures with a peculiarly local type of engraved ornamentation are interesting products of their art. In this district have also been found large numbers of nicely-shaped beads, small idols, and various personal ornaments of carnelian and quartz crystal. The large jars on the top of the case were used for burial of the dead.

PACIFIC COAST REGION

Nariño
culture
346 A B
347 A-C

The ancient remains so abundant on the Pacific coast of Colombia have been investigated by two expeditions sent by the Museum to the southern Department of Nariño. For the reason that the culture is intimately related to that of Esmeraldas, Ecuador, the material is exhibited with that of the collections from the Ecuadorean coastlands, referred to on page 99.

ECUADOR

(Cases 340-345, 347 D-F, 348, 349 B C, 350 B, 353)

FOR its greater part Ecuador is ridged with lofty mountains, the Andean system extending from north to south through the length of the republic. The series of long, rather narrow, inter-Andean valleys are separated one from another by cross-ranges running approximately east-west between the two great enclosing western and eastern ranges. These ridges are in reality great highland plateaus known as *páramos*, with elevations of from 12,000 to 15,000 feet, while the highest snow-covered volcanic peaks of the great eastern and western barriers, such as Chimborazo, Cotopaxi, and Cayambe, are even more lofty. From the western range lower mountains slope gradually to within a short distance of the Pacific coastal plain. Few rivers of importance in this region flow into the Pacific, but it is watered by numerous small streams. East of the eastern sierra, in the great territory known as the Oriente, is a considerable series of ranges of lesser height, on the slopes of which innumerable streams have their source, all ultimately reaching the Amazon. The physical character of Ecuador had marked influence on the development and the migration of its ancient inhabitants.

In Ecuador there are three great zones, not climatic but cultural, for every variety of climate prevails. These culture zones are those of (1) the inter-Andean valleys, (2) the Pacific coast, and (3) the Oriente of the

Environ-
mentCulture
zones

Amazon basin. The ethnology of the Oriente must be considered apart from that of the mountains, for the people seem to have had close affiliation with those of the great forest area of the upper Amazon (see page 147). Little or no archeological material has thus far been found in this enormous and almost unexplored territory.

The archeology of the mountain region and of the coast appears to indicate two perhaps independent movements of people from Middle America, profoundly influenced by the widely different environment.

In the field of Ecuadorean archeology the Museum stands preëminent, owing to the field researches of the Marie Antoinette Heye Expedition, on the results of which the Museum has published two quarto volumes. By the excavations and collecting conducted by the expedition during a number of years, numerous artifacts have been assembled to illustrate the material culture of Ecuador, with the exception of the southern inter-Andean and coast regions adjoining the Peruvian frontier. On the coast extended excavations were made in mounds, locally known as *tolas*, and in graves and village-sites. The extensive and unique collections thus gathered are only partly displayed, the remainder being reserved for purposes of study. As a result of these investigations it is now possible to determine something of the character of the ancient culture of this part of South America.

INTER-ANDEAN REGION

(Cases 340-345, 350 B)

The archeology of the Andean region will first be considered. The rich collections from the interior are arranged geographically, beginning with the material from the northern province of Carchi on the Colombian frontier, and extending southward to the province of Loja adjoining Peru.

The aboriginal use of jadeite in Ecuador was unknown until the recent finding of an ornament, dull-green in color, resembling in this respect the nephrite of Brazil. Subsequently, from the province of Cañar, numerous small objects of this material, as well as a rough block with the characteristic marks made by severing small pieces for amulet-making, have been discovered.

Examination of the geographical groups of earth-
enware clearly reveals the styles of vessels developed
in the various culture areas in pre-Inca times. Today
all vestiges of the earlier aboriginal languages have
disappeared, save where they survive in a comparatively
few place-names, having been superseded by the
Quichua language of the Inca, undoubtedly to a consider-
able extent since the Spanish occupancy of the country
in the sixteenth century. In fact, the Inca entered the
highlands of Ecuador only a generation or so before the
advent of the Spaniards, or about the year 1450, ex-
tending their colonies and influence to a little north of
the present city of Quito. Pottery of Inca origin is
easily recognizable, being quite unlike that of the

Jadeite
340 B

Pottery
(Various
Ecuador
cases)

Inca
influence

earlier tribes either in form or in decoration. It is found extensively in the southern and central parts of the highlands, but gradually disappears as one proceeds northward. The Inca pottery from Ecuador has been segregated and is exhibited with objects illustrating the culture of ancient Peru and Bolivia.

Although numerous local cultures are represented in the interior, for general consideration we may distinguish three great culture areas in which the remains indicate a more or less centralized development, namely, (1) the area included in the three northern provinces of Carchi, Imbabura, and Pichincha; (2) the region near the volcanoes of Tunguragua and Chimborazo in the provinces of Tunguragua, Chimborazo, and Bolivar; (3) the southern area, in the provinces of Cañar, Azuay, and Loja.

The most noteworthy feature of the ceramic art of the province of Carchi is the long, slender vessels peculiar to that area, found in large numbers in the deep, well-like tombs at Angel and vicinity. Associated with these are bowls painted with many motives of great interest in the study of aboriginal decorative art. Geometric patterns predominate, but the swastika, and bird and animal figures, also are found. Small, well-modeled olla-shape vessels, sometimes with fluted bodies, having birds, monkeys, frogs, and human figures facing each other from opposite sides of the rim, and often perforated for the insertion of carrying cords, are peculiar to the provinces of Carchi and Imbabura. Human figures sometimes on seats occur in this area, recalling the pottery figures of the coast province of

Interior
cultures

Pottery
from
Carchi
341, 342

Manabí. Triple vessels with handles, tripod bowls, duck-shape receptacles, and others with a double spout, are occasionally encountered. Negative painting is common. Curious pottery trumpets and whistles in the form of sea-shells are peculiar to this region.

In many respects the earthenware from the next province, Imbabura, is related to that of Carchi, but certain types, such as the slender vases and painted bowls, are rarely found in Imbabura, hence the conjecture that the examples which occasionally have been taken from tombs in that province were introduced by trade. Certain other types, such as tripod vessels, duck-shape ollas with tripods, and a form of duck-shape vessel with two projecting stub handles in front and one behind, are found in such abundance that, if encountered elsewhere, their place of origin may be ascribed to this culture area. Small beautifully modeled and decorated receptacles are relatively common, and certain solid crudely modeled human figures are likewise found.

From Pichincha province the antiquities reveal a lesser degree of advancement in ceramic art, but for general classification the region may be included with Carchi and Imbabura, although it is far less rich in forms, while influence of the Inca is shown by the relative abundance of their pottery.

The same is true of the province of León, where nearly all of the pottery gathered by the expedition is of Inca origin.

Southward, in the province of Tunguragua, one enters another distinct culture area, so far as may be

Pottery
from
Imbabura
343 B C

Gold figures

Pottery
from
Pichincha
343 D E
344 B
350 B

León
pottery
350 B

Pottery
from
Tunguragua
343 A F

judged by the pottery. To a certain extent it is related to that of Chimborazo, but here is found a distinct local development in ceramic art, characterized by vessels with thin walls, ornamented with straight or wavy parallel lines, often with a human face on the rim and rudely shaped arms raised below, but with no other part of the body represented. Such ware is found in great abundance within a limited area, but it is so rare in the adjoining provinces that it must have been introduced by trade. Another type is characterized by negative painting. A remarkable vessel representing an animal with massive stub legs and with a small olla on its back is displayed.

Pottery
from
Chimborazo
344 A B E F

Chimborazo, including the region of the city of Riobamba, is now reached. There was not the esthetic development in form and ornament found in the Carchi region, yet by reason of the great quantities of pottery beneath the surface, and the fact that excavations have revealed stratified culture sequence in the vicinity of Riobamba and around Ambato in the province of Tunguragua, the Chimborazo culture area is the most important of all the ancient centers of the Andes. A small collection illustrating the characteristic features of the ceramic art of these culture epochs is displayed.

Proto-
Panzaleo I
period

The earliest period, which lies at the bottom of the stratum, has been called Proto-Panzaleo I; its art is characterized by a profound influence from Central America. Tripod vessels appear, and the decoration consists almost wholly of engraved geometric patterns in parallel lines made with a comb-like instrument.

The next period, Proto-Panzaleo II, represents a development and continuation of the first period, the difference in style being not more marked than in the Transition Period between the Archaic and Teotihuacan of the Valley of Mexico. Marked traces of a new influence exerted from the north are shown, manifested in the appearance of negative painting (so common in Chiriquí, Panama) in the decoration of vases imitating melons, the employment of dragon-like figures, and the stylistic figures of bats on the rims of vessels.

Proto-
Panzaleo II
period

The third period is that of Tuncahuán. Not only is this epoch represented in the province of Chimborazo, but it extended throughout almost the entire inter-Andean region of Ecuador. Its culture, so far as the pottery is concerned, is characterized by (1) the disappearance of tripod vessels; (2) the relative abundance of negative painting in decoration, in which the octopus motive recently recognized in Chiriquí is found; and (2) the use of white in pottery ornamentation, which now first came into vogue. This third period seems to have been of short duration, and the immediate Middle American influence on the art of the ancient Ecuadoreans ends with this epoch. Objects of copper, absent from the first two periods, were introduced during the Tuncahuán epoch.

Tuncahuán
period

The fourth Chimborazo epoch, that of San Sebastian, had many forms of pottery vessels common to the preceding periods; but new types appear, such as vases or cups with human faces in low relief on the sides, and plates with handles. During this period a slight

San
Sebastian
period

influence was probably exerted from the Tiahuanaco region far to the south, but there seems also to have been an intimate relationship with the culture of Cauca valley in Colombia. Progress was made also in architecture, as shown by ruins near Guano.

The art of the Chimborazo region reached its highest development during the fifth culture epoch, that of Elen-pata.
Elen-pata period
345 A B F

Negative and positive painting of earthenware flourished, and jars with conventional human faces and arms, placed in low relief on the necks and upper body parts of the vessels, are characteristic. Pottery of this type has been found in great quantities in this restricted region, but thus far no examples have been discovered beyond. In many of the vessels human bones and innumerable small shell beads have been found, while in many others a mass of yellow powder revealed the sediment of *chicha*, showing that they had been filled with liquid for the refreshment of the departed with whom the receptacles were buried. Copper ornaments in large numbers are found.

The art of this period was developed exclusively in the territory of the provinces of Chimborazo, Tunguragua, and Bolivar, and seems unquestionably to belong to the Puruhá, who lived there at the time of the conquest. It was the outstanding culture epoch of this part of South America. The major portion of the collections from Chimborazo belong to this period.

The last pre-Inca period was that of Huavalac, the material culture of which does not display wide differences from that of Elen-pata, although the two are distinguished stratigraphically. Lost-color ware is characteristic of the Huavalac period.
Huavalac period

In the southern culture area, that of Cañar-Azuay and the province of Loja, the Museum has little to show the characteristic archeological features of a highly important region. Recent excavations have resulted in a wealth of material revealing a high degree of culture, showing marked Middle American influence. Here, as in no other part of Ecuador, architecture reached a high plane, as the ruins of splendid fortresses and edifices of stone attest. There was a very active Inca settlement of this area, the cities, notably Tomebamba, being among the most important of the 15th and the early part of the 16th centuries. A wealth of gold ornaments and implements have been found in tombs at Chordeleg and Sigsig, but the Museum collection of these objects from the latter site are not yet exhibited. Among the pieces are a massive gold crown with bangled golden plumes, a bracelet with bangles, "seals," breast ornaments, and several tips for ceremonial spear-throwers. Pan-pipes and other important objects found in Sigsig tombs were early assigned to the melting-pot.

Culture of
Cañar-
Azuay
and Loja
345 D

Goldwork

PACIFIC COAST REGION

The climatic conditions of the Pacific coast of Colombia and Ecuador are entirely different from those of the inter-Andean region. From the Rio Guapi in the department of Nariño, Colombia, to the mouth of Rio Santiago in the province of Esmeraldas, Ecuador, there is a broad stretch of low country extending westward from the foothills of the Andes, covered by a dense

Physical
features

tropical forest and drained by many rivers. This area is bordered by a wide fringe of mangrove swamps crossed in all directions by innumerable small estuaries which conceal many islets. It is possible to travel by canoe practically the entire distance of several hundred miles between the Guapi and the Santiago, by way of this intricate system of natural canals, only occasionally skirting the ocean for short stretches.

On all the islands investigated are mounds and deposits, and along the banks of the streams are found the same conditions, telling the story of a continuous line of habitations in former times along the coast. Not knowing the name or names of its ancient inhabitants, this region is designated the area of the Esmeraldas culture; but this culture seems to have extended southward for a distance of at least 150 miles, where somewhat different geographic conditions are found. Beginning at the Rio Santiago, the coastal swamps disappear, the shore-line presenting a series of high bluffs alternating with or separated by plains, the bank along the beaches averaging 6 to 8 feet above highwater. In these banks occur numerous deposits of human artifacts.

In the province of Manabí the humid region extends southward to the region of the Bay of Caraques. From this area, only a few miles south of the equator, to Cape San Lorenzo, an arid belt is entered, the lowlands being desert-like, but the hills are clothed with tropical verdure. Southward from Cape San Lorenzo is another humid stretch, extending to 2° S. lat., where another arid zone reaches to the northern boundary of the Gulf

of Guayaquil; here another humid zone is met, only to reach, in turn, the typical coast desert region at the Peruvian frontier. These strange alternating climatic conditions have an important bearing on the archeological problems that have arisen during the course of the Museum's explorations in the coastal region of Ecuador, problems that may be solved only through long-continued research. It seems probable that we must deal with two distinct peoples whose occupancy extended over a considerable period and whose highest development seemingly was reached long before the coming of the Spaniards. At present we have only glimpses of the comparatively high local attainments by the early inhabitants of the two culture areas.

The collections from the Pacific coast indicate the former existence of two cultures differing widely from those represented by the artifacts from the highlands of Ecuador, where at least three major cultures may be distinguished, especially in the types of pottery found in the Andean valleys.

The northern coast culture, in the province of Esmeraldas, merges into the culture of the south Colombian coast region. The culture found in Manabí, in the vicinity of the equator, possessed individual characteristics indicating an intensive local development; but throughout the Ecuadorean coast there are traces of influence exerted from Central America, chiefly from the field of Mayan culture. Some evidences of contact with the pre-Inca people of the Peruvian coast are found, but there appears to have been slight connection between the coast peoples of Nariño, Esmeraldas,

Two coastal
cultures

and Manabí, and those of the interior of Ecuador, so far as we may judge from the artifacts. If there was connection with the inter-Andean cultures, it was with the people of the interior of southern Colombia. The culture of the two coastal areas developed, as indicated, under widely different climatic conditions. In Nariño and Esmeraldas an exceedingly humid climate is found, with accompanying tropical vegetation; but in Manabí, for the greater part, the region is desert, except for tropical oases on the hilltops.

The collections from the Department of Nariño in Colombia, to which allusion has been made (page 90), represent the results of excavations made in the mound group on El Morro island near Tumaco, and in the deposits at Mataje on the Rio Mataje on the Ecuador frontier. Archeological material was found in abundance also along all of the numerous streams visited in this section, notably the Rosario, Caunipi, and Mexicano. Stone axes of various types are numerous, and deep, massive stone metates are characteristic of this culture area. Common also are deposits of broken vessels, the ware showing traces of having been painted red. The shapes of the vessels approach closely the forms found in Esmeraldas, the main difference being in the quality of the clay. Some of the human pottery figures are strikingly like those of the Quimbaya culture area in Cauca valley, but they lack the negative painting often found there. However, as practically all of the pottery from the coast has been badly affected by the extreme dampness of the soil, it is possible such negative painting may have dis-

appeared. Some of the human effigy vessels and figures are of unquestioned Central American style, and might have been made within the area of Mayan culture. Several double-spout water vessels, on the contrary, must have originally drifted up the coast through trade with people having contact with Peruvian coast people. From the Mataje river deposits is a broken pottery slab, the direct prototype of the stone slabs from the Ecuadorean province of Manabí, the upper enframing section being identical. Such slabs are restricted to the Manabí culture area, the only exception being the Mataje specimen in clay. These will be described later. The single specimen of painted pottery vessel belongs to a unique class, so far as the decoration is concerned, although in form it is identical with vessels of a group from the provinces of Carchi and Imbabura in the interior of Ecuador. Other types of artifacts will be mentioned in treating the culture of Esmeraldas, where more abundant material was obtained.

ESMERALDAS CULTURE

(Cases 347 D-F, 353, 356 I-K)

In many respects the most interesting culture in Ecuador is that found on the shores of Esmeraldas and extending northward for a hundred miles. Remains of this culture are found also well up the numerous rivers that thus far have been investigated. The only researches, however, that have been conducted in this important region are those of this Museum, and doubtless scores of important sites still remain unknown.

The half-dozen expeditions of the Museum in this region have brought to light, by excavation and collecting, a most interesting aboriginal culture hitherto unknown.

Prominent features of the Esmeraldas culture are the surprising advancement made in modeling human and animal figures in clay, and the remarkable achievement in the goldsmith's art. Not only was gold worked into a variety of beautiful jewelry, but a dominant feature of the art is the almost microscopic character of many of the objects fashioned in filigree; and a still more striking feature of the skill of the workers in the precious metals is the occurrence of jewels made of pure platinum or of platinum and gold filigree. In some examples objects were made of gold on one side and platinum on the other, while some little gold jewels are embellished with semi-precious stones as settings. Gold was employed also for decorating the teeth in various ways, notably by the insertion of small discs in perforations cut in the surface of the upper incisors, or by replacing the enamel cut from their outer faces with thin bands of gold. The art of inlaying points to Central American influence. Among the objects made of gold may be mentioned finger-rings (some of them set with semi-precious stones), nose-rings, earrings, bracelets, lip-ornaments, tacks or studs of gold of varying forms used to place in incisions in the face for decoration, fish-hooks, awls, and needles. Many of the innumerable small thin plates of gold with tiny holes were doubtless sewed on gala garments.

Goldwork
331 D
West Hall

The great number of human and animals figures in the forms of idols or effigies of solid pottery, or hollow Pottery to serve as whistles, are generally of a type more Central American than South American in character. Most of the earthenware receptacles are simple in form, but many are ornamented with appliqué designs of a highly esthetic nature. These vessels, as well as the effigies, whistles, smoking-pipes, and other objects, may all have been painted red, but owing to the dampness of the ground in which they were buried, only a few examples showing the paint have survived.

Exhibited is a collection from the islet of La Tolita, explored by the Museum expedition during several summers. Over a large part of the island ancient deposits to a depth of six or more feet are encountered, and above ground an extensive group of mounds exist. Innumerable artifacts of gold, stone, and pottery have been exposed here in the process of recovering gold and platinum by the placer method. With the exception of slight excavations in two of them, the mounds have not yet been explored. In one, a remarkable treasure of gold was found in a clay chest, and in the other, among the specimens in a grave was a golden egg with a small emerald inside. The collection shown is only a small part of the material procured. The clay figures of human beings and birds and animals show a wide range of types, and customs and costumes of the ancient people are depicted by the specimens. In the human heads and faces are found all styles of treatment, from the archaic of Middle America to the most advanced and accurate modeling. Many of the pieces are so closely

La Tolita
353 A I K L

allied to Mayan artifacts as to be almost indistinguishable. Examples of the gold objects are exhibited in Case 331 of the West Hall. A single specimen of wooden human figure was found here; but as the objects thus far recovered were in swampy soil, great deterioration has resulted. There does not appear to be any culture stratification on the island, objects of all types being mixed indiscriminately.

In some parts of Esmeraldas enormous pottery tubes
Pottery tubes 353 J-L were superimposed over large ollas for burial purposes. In this manner many interments were made, recalling the well-like tombs of the Peruvian coast, the interior of Ecuador and Colombia, and the region of Chiriquí in Panama. All burials were not thus made, however, as the numerous *tolas*, or mounds, were used also for sepulture.

It is believed that the Esmeraldas culture area is one of the most important in South America for the study of the southward migrations of Middle American peoples, the type of culture found being intermediate between the Mayan and that of the Peruvian coast.

MANABÍ CULTURE

(Cases 348, 349 A-C)

An outstanding feature of the Manabí culture is the development of sculpture in stone, for such is almost unknown in the interior, and is entirely absent in Esmeraldas. The Manabí sculptures have been found in association with the ruins of houses in hilltop cities and in a few sites in the arid plains.
Sculpture

Of first interest and importance are the seats, of which the Museum has a large collection (exhibited on the pyramid in the middle of the hall). They were gathered from a number of hilltop cities, and have never been found beyond a restricted area of about 20 miles in diameter. From their occurrence in numbers at dwelling sites, it is believed that these seats were used ceremonially in household sanctuaries, and that they represent the transition of the utilitarian wooden seats into stone seats having a religious significance. Of next importance are the sculptured slabs found in connection with the seats (displayed on the columns at the north side of the hall). It is apparent that these bas-reliefs were not nearly so numerous as the seats, but the motives may be divided into a number of clearly distinct groups, prominent among which are the representations of female deities, a complex animal figure with octopus-like characters (a kind of sea-monster), and a combination of disc and crescent motives. Stone columns recalling those of Costa Rica, animals on columns, representations of birds and animals, and human figures, round out a group of sculptures unique in South America. A curious feature of the archeology of the Manabí region, where sculpture in stone was so highly developed, is the scarcity of stone implements, for axes and celts are almost never seen, although hammerstones are abundant. On the contrary, in Esmeraldas, especially in the interior, where practically no sculptures are found, innumerable tools of this character and in an infinite variety of forms are encountered. Another noteworthy feature

Stone seats

Sculptured
stone slabsStone
implements
353 G

is the entire absence of arrowpoints and spearpoints in the culture areas of Manabí and Esmeraldas, indicating the use of the blowgun with bone-tipped darts. The peculiar stone hooks for spear-throwers, so common in the interior, are not found on the coast.

At the house sites numerous flat slabs and handstones used in grinding have been found; indeed the natives today use these stones which they recover from the ruins. None with legs, like those of the Central American metates, have been discovered.

An interesting exhibit consists of engraved stones from the island of La Plata, off the Manabí coast. These are supposed to be record stones.

In ceramics the explorations by the Museum have brought to light an important array of vessels, effigies of human figures on seats, small figures, whistles of many forms and sizes, stamps, molds, and thousands of engraved spindle-whorls, all indicating a peculiarly local culture, but pointing clearly to northern rather than to southern influence. Undoubtedly wood was extensively used in various ways for making seats, idols, and household furniture, but products of the art of woodcarving as well as of weaving have entirely disappeared.

A few pieces of copper and some ornaments of gilded copper are the only examples that have been discovered thus far to show the metalwork of the ancients of Manabí. Objects of bone and shell are comparatively rare.

Burial customs In the hilltop cities, as well as in those of the arid plains, the dead were deposited in bottle-shape tombs cut into the solid rock, as well as in the *tolas*, or mounds.

Pottery
348, 349 B C

Other artifacts

THE GUIANAS AND VENEZUELA

(Case 373)

LESS definite information is available concerning the archeology of French, Dutch, and British Guiana, and of Venezuela, than of any other portion of South America. The climate and topography of Venezuela are as varied as those of Colombia, of which it is geographically an extension. The Guianas are crossed from south to north by a great network of rivers; the country is low and the climate humid. In the interior are highlands and many grassy plains or savannas, great portions of which are unexplored, and of which next to nothing is known concerning the archeology and ethnology.

Physical features

Probably Chibcha influence extended into western Venezuela, but over large tracts the Arawak and Carib held sway at the coming of the whites. The latter tribes were also the two known peoples of the Guianas, and the impress of their migration into the West Indies was indelibly made in those islands.

Arawak and Carib

In the vicinity of Merida, in the Venezuelan Andes, were the Timote, a tribe apparently independent of the other stocks of northern South America, so far as known, although it has been asserted that they were related to the Chibcha. As in many other parts of the continent, the language has disappeared, and only by comparative archeological research and a study of skeletal remains will it be possible to determine affiliations. The Timote had attained a considerable degree of culture, seemingly the most advanced in Venezuela, judging by the meager archeological material available.

Timote

The most abundant ancient remains are found in numerous small mounds and burial places in the vicinity of Lake Valencia in the Aragua valley, southwest of Caracas. This region has been placed within the Carib area, but as no trace of the language of the people has survived, their connections can be determined only by archeological study.

A collection from this region, mainly of pottery, stone, Pottery and shell, is exhibited. The heads of the numerous Stone human figures of pottery recall the archaic art of the Valley of Mexico. Animal heads adorn the rims of Shell vessels, often projecting above the edge, showing distinct connection with the people of the West Indies, either Arawak or Carib. The art generally is rather crude, and is characteristic of this northern area of South America, extending through the Guianas to the mouth of the Amazon.

Margarita island From the island of Margarita are exhibited the gatherings from excavations conducted by a Museum expedition, the only scientific work of the kind thus far carried on in Venezuelan territory, a report on which has been published. Carib influence is clearly shown in the pottery, some pieces being identical with earthenware from Trinidad and other Antillean islands. Large breast-ornaments cut from the lips of conch-shells resemble specimens of stone, some quite large, of a form peculiar to the Venezuelan Andes. Free use of shell for ornaments is a common aboriginal feature of this region, which in many respects is the most important unworked field in South American archeology, for from this area the West Indies was unquestionably peopled.

BRAZIL

(Case 356)

THE territory forming the Republic of Brazil is somewhat larger in area than the United States, exclusive of Alaska, for it occupies nearly half of the land area of the Southern continent. At the time of its discovery in 1500, this region was inhabited by numerous Indian tribes, but from its extended seacoast the Indian population has now either almost disappeared or has become practically merged with the blacks whose ancestors were brought from Africa as slaves. A considerable Indian population still lives in the great remote interior parts of the republic, preserving the aboriginal habits, customs, and ceremonies of ancient times.

Two principal groups of aborigines have been distinguished in central and southern Brazil. The Tapuya, or Ges, who are supposed to be the more primitive of the early inhabitants, buried their dead in large earthenware urns, called *igacaras*, with inverted bowl covers. They excelled in flaking stone implements. The present Botocudo belong to the same stock, although they are said to be of lower culture than the other group. Certain skulls found in Lagoa Santa are attributed to them. The Tupi-Guarani occupied a far greater part of the area under consideration. From the region of the Amazon valley northward to the boundaries of the Guianas and Venezuela were the Carib and Arawak, who extended also through the Antilles. The Carib are now known to have come originally from western Brazil.

Various
tribes

while the Arawak are believed to have had their first settlements in the region a little to the north of the Carib. In the area occupied by one or the other of these tribes it is probable that the native manioc, one of the great food-roots of ancient America, was first cultivated.

For reasons which cannot be presented here, it seems highly probable that the greater part of the vast region under consideration, specifically its southern part, was not occupied for so long a time as the Pacific coast and the inter-Andean valleys. Indeed it is reasonable to conjecture that the southern Brazilian area and portions of the Argentine Republic were the latest parts of the continent to be permanently settled, if it is considered that the logical route of early migration southward from Central America was probably along the Pacific coast, or through the Andean valleys, or both. There seems to have been, at the time of the earliest aboriginal invasion of South America, a movement eastward from Panama, along the northern coast of the continent, through Colombia, Venezuela, and the Guianas, which reached the mouth of the Amazon and ascended that stream; and there may also have been a contemporaneous filtration of people southward by way of the numerous waterways which drain into the Caribbean sea.

With such a paucity of information concerning the native Brazilian tribes and their former migrations, it seems almost hopeless to connect with either the Tapuya or the Tupi-Guarani, in any certain degree, the meager relics of antiquity, for the linguistic map of the region exhibits a perplexing intermingling of tribes. The entire region from the mouth of the Amazon southward

Migration

to the frontiers of Uruguay, Argentine, and Paraguay, and westward to Bolivia, is less known archeologically than any portion of the Western Hemisphere.

The only archeological collection in the United States from southern Brazil is here exhibited. It is mainly from the states of Santa Catharina, Minas Geraes, and Matto Grosso, but there are also specimens from other southern Brazilian states. Pottery is excessively rare; one specimen of the coiled variety recalls the ware of the Pueblo region of the United States. Stone axes and celts are very common; many of these are of fibrolite, a material not used elsewhere in South America, but it was employed for implement-making in Arizona and New Mexico. Long T-shape lip-ornaments, called *tembetas*, some of them made of quartz crystal and beryl, are characteristic of the Brazilian culture areas. Artifacts of nephrite are rather common in Brazil; the only known locality where this material occurs *in situ* is near Amar-goza in the state of Bahia, about the central part of the coast region. With the single exception of a small idol from northern Ecuador, no objects of jadeite or of nephrite have been reported from any other part of South America, the nearest place of occurrence being Costa Rica. A nephrite celt from Minas Geraes is exhibited. Mortars of zoömorphic forms are peculiar to certain sections of southern Brazil, and pestles are rather numerous. Skilfully chipped arrow- and spear-heads of quartz crystal are among the most highly finished objects of this class from South America. Although limited in number, the artifacts prove that the ancient Brazilians were not exceeded by any of the more ad-

Various
objects

vanced people of the continent in the making of implements and ornaments of stone.

The only region of Brazil in which antiquities are found in abundance is that of the lower reaches of the Amazon, especially on the island of Marajo near its mouth. Here an enormous number of painted and incised pottery vessels, as well as effigies, stools, and other objects, have been discovered in burial mounds and ^{Pottery} on village-sites. These artifacts, of a peculiarly local type, are evidently the product of a people which achieved the highest culture of any of the South American Indians east of the Andes. Resemblances are traceable between the art of this region and that of the natives of British Guiana, the island of Trinidad, and the Lesser Antilles, probably because it represents the work of an Arawak-speaking people. One of the large burial jars from Marajo island is exhibited on the pyramid in the center of the hall. Certain traces of the decorative art of this culture area are seen in the pottery made today by some of the tribes of the upper Amazon, such as the Conebo, and even in the Oriente region of Ecuador and the interior of the Guianas.

PERU

(Cases 349 A D-F, 350 A B, 351, 354)

THE diversified geographical features of Colombia and Ecuador are repeated in Peru. The great western cordillera of the Andes, however, extends close to the sea, leaving a coastal plain across which are many narrow valleys, through which small rivers flow to the Pacific.

General
features

This entire stretch of coast, except for the narrow strips watered by the streams, is a parched and rainless region. In it are numberless ancient cemeteries, in which have been preserved, to a degree not found elsewhere in the Western Hemisphere, everything that was buried in the graves hollowed in the nitrous sands. It was the habit of the pre-Inca to bury with their elaborately mummified dead not only personal ornaments, paraphernalia, and tools of trade or profession, as well as all kinds of food, but to place in the graves pottery vessels on which are depicted, by either modeling or painting, nearly every known object connected with their life. The modes of burial varied almost endlessly, and from great formality in the beginning they seem to have grown more and more simple. Hence, owing to the unusual natural conditions and to native customs, certain phases of the aboriginal life may be studied, which are missing from other culture areas, where the artifacts have perished through decay or because the natives did not reproduce in their ceramics the objects known to them. It may be asserted that little relating to the material culture of the ancient inhabitants of the Peruvian coast has been lost, for we possess greater knowledge of their arts and crafts than of any other ancient aboriginal American people. Textiles, of which we know next to nothing in Middle America, are here preserved in marvelous condition, some of the most delicate and ornate fabrics having suffered little or no deterioration either in color or in texture.

When the Spaniards made their advent in Peru early in the sixteenth century, they found a flourishing civili-

Inca culture zation, knowledge of which has come down to us under the name Inca. The people lived in highly organized states, with a well-ordered government. Religious structures and other buildings of adobe bricks or of stone, many of great size and splendor, abounded in the numerous well-populated cities, both on the seacoast and in the inter-tropical mountain region, the great valleys of the Andes. Well-built roads traversed certain districts of the country, and arts and crafts were developed to a high degree of excellence. The coast people carried on an extensive commerce; rafts with sails navigated the seas, while the mountain people had domesticated the llama which served as a beast of burden in the highlands. Agriculture had been brought to a high plane in both regions, and along the coast an elaborate system of canals and aqueducts conducted water from the mountains to irrigate the almost desert valleys. Where the watercourses became dry during a great part of the year, reservoirs of enormous size are found.

In the great narrow valleys in the Andes, where better crops could be raised than in the lower tropical or desert lands, every available spot was cultivated, and naturally cultivable areas were augmented by the building of terraces on the steep slopes of the higher valleys, as well as on those facing the Pacific. These terraces, locally called *andenes*, are the most remarkable examples of their kind known to the world, by reason of their great extent. They were irrigated by a system of canals and aqueducts, and even tunnels were cut through the mountains and channels around their sides, which may still be seen, although no longer used.

The Indians of Peru possessed two of the most valuable foods known, the potato and the manioc, the former of which they developed from an insignificant tuber no larger than a filbert, while maize was developed by cultivation from a kind of grass. When the food production of America with reference to the available plants for supporting it is considered, one cannot impute to the aboriginal race any inferiority, in ingenuity or industry, to the peoples of the Old World. The Peruvians also domesticated the only animals capable of domestication. With the exception of the dog, apparently trained to do man's bidding in nearly all parts of aboriginal America, the only animals domesticated were those of Peru, namely, the guinea-pig, used for food in Peru and Ecuador, and the more important quadrupeds—the llama, a small mountain animal useful for food and clothing, and capable to a limited degree as a beast of burden, and the alpaca, valuable for its flesh and fleece.

But the Inca, or more properly the Quichua, were not the creators of this complex of cultures, nor did they form the mass of the coast population. They had gradually worked their way from the valley of Cuzco in the mountain region, reaching the coast through the many fertile cultivated valleys, overcoming the inhabitants in a comparatively easy manner by gaining control of the water systems. This was in relatively late times, as the beginnings of their traditional history date only to three or four centuries before the arrival of white men, and during the 14th century they rapidly extended their dominion over an enormous area, cer-

tainly northward to beyond Quito in Ecuador, and southward well beyond the present Valparaiso in Chile. They were the heirs of at least four cultures, or succeeding epochs or periods of civilization, which had developed in sequence on the coast and in the great Andean valleys; in fact, although the Quichua dominated the region along the coast when the Spaniards arrived, they had made little impress on the arts and crafts of the coast people.

The domestication of the llama and the alpaca in the highlands (for these animals do not thrive on the coast) presupposes a long period of sedentary life by the pre-Inca people who lived in the region where this unique feature of aboriginal life was developed. Here also one should look for the development of the advanced system of social organization which apparently reached a higher stage in ancient Peru than in any other part of the Americas. This social system, called the *aillu*, was based on an agrarian communism that gives evidence of considerable antiquity, coming into existence with the beginnings of agriculture in the region.

That man has existed for a considerable period on the Peruvian coast has been amply demonstrated by archeological explorations at a number of important sites. At Ancon, for example, superposed artificial strata show that during the earliest known period the people were a coast fisher-folk, and that in turn the place was subsequently occupied during several culture epochs before the Inca invasion. Pachacamac has yielded similar evidence of the relative antiquity of man in this region—several thousand years at least. Study

of the vast number of crania from the graves affords evidence that the entire coast was first inhabited by a people of short-headed type, which evidently drifted southward along the coast and through the inter-Andean valleys. These were followed by a migration of people of the same fundamental physical type, but who practised various forms of head deformation. Later there appear groups of long-headed type, which probably reached the coast from the eastern slopes of the Andean region of Peru.

Within the scope of this Guide it is manifestly impossible to present an adequate idea of the various features of Peruvian architecture. The people of both the coast and the interior built massive edifices of a type of construction relatively different from that of Middle America, the ruins of which may still be seen. Along the coast, where practically no stone was available for buildings or for sculpture, the structures were erected of adobes, or sun-dried bricks, now seemingly as hard as stone. Gigantic terraces and huge stepped pyramids were built for temples and burial places. Buildings were often of several stories, and, unlike those of Central America, many were provided with windows, but the roofs were always of perishable materials. Excepting the few instances of ruined coast cities whose adobe walls are ornamented with stucco designs in bas-relief, while other stucco-covered walls show traces of mural decoration, neither the exterior nor the interior walls were embellished. This is true also of the numerous stone buildings found in the ruined cities of the interior, the walls of which bear no carving. These stone houses are

Buildings

often characterized by their cyclopean walls, of huge stones fitted together without mortar. It is related by Spanish conquerors that many of the walls in Cuzco, the Inca capital, were covered with massive gold plates. Bonding of the masonry forming the corners of buildings was practised, a method unknown to the Middle Americans; and often copper or bronze clamps were countersunk in blocks to hold them firmly together.

The architecture of the Peruvian highlands is likewise characterized by the imposing walls of the buildings, which exhibit great skill in handling the huge polygonal blocks of stone, which necessitated vast labor and unusual skill to fit them with precision. The structures were preëminently utilitarian, yet they are impressive in the beauty of their masonry. Certainly the most excellent examples of wall construction thus far found in America are at the late Inca site of Machu Picchu; yet from the point of view of esthetic effect they do not compare favorably with the results produced by the sculptor-architects of Mexico and Central America.

Only two sites in ancient Peru are known where Sculpture monolithic sculptures were produced to any great extent, namely, in the Andean region of Chavin, and in the neighborhood of Lake Titicaca, at the ruins of Tiahuanaco, in the present Bolivia. Stone carvings in the form of great sculptures, or as mortars, cups, and the small amulets or idols so common to Middle America, do not show the skill in workmanship developed in the northern culture areas.

It has been stated that, in the art of weaving, whether judged by the fineness of texture, the purity of design,

or the harmony of color, the textile fabrics of ancient Peru are rivaled only by the most excellent products of Asia; while the technique of Peruvian fabrics, comprising as it does every method known to the primitive loom, is advanced beyond that of any other people. These fabrics range from rough cotton mats to gossamer veils, their technique from single embroidery and painting to complex gauzes and veils, and a kind of fancy weaving somewhat like Jacquard work. The Peruvians carried spinning also to the highest perfection. For textiles the fibers most commonly employed were cotton, the wool of the llama, vicuña, guanaco, and alpaca, the filaments of the agave, and occasionally human hair. The appurtenances connected with this highly esthetic industry, such as work-baskets containing spindles and yarn, and looms with partially woven fabrics, have been preserved in the graves, together with innumerable examples of every type of weave in both the unfinished and the finished products. A splendid mantle, the gift of Mr. James B. Ford, is in many respects the most beautiful example of Peruvian weaving known; it dates, however, from the first years of the Spanish dominion, as two of the motives, the double-headed eagle and the harpist, are distinctly of European derivation. This mantle, nevertheless, was woven while the Indians still possessed the skill and technique of the period in which the climax of the weaver's art was attained, hence it represents a triumph of aboriginal esthetic achievement.

Feathers formed an important part of the ceremonial accouterment of ancient America, and their use still

Textiles
354

Feathered
textiles

354

prevails among all the tribes to which brilliant plumage is available. Owing to the peculiarly favorable conditions for preservation in the coast deserts of Peru, more examples of feathered fabrics are known than from any other area in the New World. Ponchos, head-dresses, and plumes have often been found in graves, but usually they have fallen to pieces as soon as exposed, hence well-preserved specimens of feathered textiles are among the rarest objects of Peruvian archeology. Men, animals, and geometric patterns in varying colors embellish many of these objects, and gold and silver bangles are often attached. It has been determined that the technique of interweaving the feathers of the textiles is different from that employed by the present-day Indians of South America. The Museum is fortunate to be able to exhibit several noteworthy examples of feather ponchos, the gift of Mrs. Thea Heye.

Metalwork

351 B

The ancient Peruvians were also extremely proficient in metallurgy, hence their work in gold, silver, and bronze is noted for its variety and beauty, and for the skill with which the technical processes were employed. Probably gold was more commonly used in ancient Peru than in any other part of the Americas, for a fabulous amount was obtained by the early Spaniards, all of which went to the melting-pot. Both gold and silver threads were interwoven in some of the mantles. They made ornaments, crowns with plumes and bangles, wristlets, idols, and utensils such as bowls and beakers, of the precious metal in an infinite variety of forms. A golden breast plate from Cuzco is the subject of a pamphlet issued by the Museum.

Woodcarving did not reach so high a plane as in Middle America, but elaborate ceremonial staffs were carved of wood, sometimes colored with mastic. Receptacles, paddles, clubs, and agricultural and other implements, as well as chests and idols, made of the same material, exhibit considerable skill in workmanship and design. Especially noteworthy are the elaborately carved ceremonial spades, sometimes ornamented with coverings of thin plates of gold or silver, while others bear traces of a decoration in a kind of red lacquer or in paint of other colors.

Wood-
working
354 A

The art of incrusting objects with mosaic was practised in the coast region of Peru, the technic being similar to that of the ancient Mexicans, though far less skill in application is shown in the Peruvian work. The materials employed were chiefly pieces of shells of different shapes, sizes, and colors, including mother-of-pearl, as well as varicolored bits of stone, turquoise, and pyrites, and even ore and gold were occasionally employed. The base upon which the incrustation was laid was wood, bone, shell, or stone. Idols and large cups of wood, and other objects, were decorated with inlays of round and square bits of shell, including mother-of-pearl. Animals and birds cut out of the lips of molluscs were covered with mosaic and provided with golden studs for eyes. Mosaic ear-plugs of wood and other ornaments have been found, and bone spatulas were decorated with inlaid designs worked in turquoise and pyrites. An example of mosaic-work consisting of two sections of shells embellished with turquoise and shell incrustation to form a conical object, probably for ceremonial use, is displayed.

Mosaic
351 A

Pottery
349 A F
350 A

In no other part of the world can more be learned of the life of an ancient people by a study of the pottery vessels and figures than on the coast of Peru. It is next to impossible to enumerate the countless varieties of forms and combinations of the coast pottery, for hardly two specimens are alike. Not only are found almost every combination of regular and geometric patterns, but almost the entire known cosmos contributed to the ingenious demands of the potter. Youth and age with all their external physical features, their deformations and diseases, as well as birds, animals, fishes, shells, and fruits and other vegetal products, all have their reproductions in earthenware; while architecture, the arts, daily occupations, costumes, and religious practices are likewise illustrated either by modeling or in painting, or in a combination of both, in these fragile yet almost imperishable receptacles and effigies.

Various
culture
periods

Pottery, weaving, and metalworking flourished in Peru at the earliest period no less than in more recent times, and the art products of the earlier epoch were not inferior to those of the later. Certain types of pottery from the different culture areas are now well defined, and their chronological sequence will be definitely established as knowledge is increased by further investigation. The ceramic objects of Recuay, Trujillo, Chimbote, Chancay, Ancon, Pachacamac, and Nasca must be studied from the point of view that their development was not necessarily contemporaneous, but that they originated during long periods of time, and therefore, instead of belonging to parallel cultures, they represent succeeding epochs according as they are found

in varying strata. Long-continued processes of change necessarily resulted in a great variety of forms, as may be traced through numerous types of objects. Pottery, textiles, and wrought metals exhibit fundamental differences in form and ornament, as well as in method of treatment.

CHILE

(Case 352)

THE southern part of the so-called Inca empire, named Collasuyu, comprised the region of Lake Titicaca in Bolivia, Charcas and Tucuman in Argentine, and the valleys of Arequipa, Tacna, and Moquegua in Chile. This territory of Chile was subdued by the Inca Tupac Yupanqui, shortly before the coming of the Spaniards, but the beneficent influence that was being exerted by Inca industry was destroyed in short order by the Spanish conquerors, so that little trace of this impressed culture is now found. It must not be assumed that Chile is lacking in antiquities, nor that the region is A neglected field not archeologically important, because the Museum collections are restricted to one small case, for there is a paucity of material from these parts in all museums. It is not alone among the most neglected of all the highly important archeological areas in South America, but it is also a promising field for ethnological research, since there is little knowledge of the habits and customs of the Araucanians who still inhabit portions of the southern part of the country.

In early times northern Chile was the seat of several Cultures cultures, chronologically considered, but the Atacameños apparently stand out as the leading people of this part of South America. The arid region from the seacoast eastward to high altitudes, reaching into northwestern Argentine and southern Bolivia, is known as the desert of Atacama. Here flourished the Atacameño culture, which was related to the Diaguita or Calchaqui culture of Argentine. Late researches in the coastal area have revealed undoubted stratified deposits which have attracted the attention of students and promise ultimately to yield much information pertaining to the ancient history of this interesting region. Owing to the extremely arid nature of the country, under conditions similar to those existing on the Peruvian coast, wood, textiles, and other materials which ordinarily perish are found abundantly and in well-preserved condition. A feature of the archeology of this region is the comparatively numerous pictographs.

Atacama
objects

A small collection from ancient graves in the Atacama desert, in the province of Antofagasta, is displayed. Among the objects are a considerable number of artifacts of wood, such as the bow and short arrows, together with implements believed to have been used both in agriculture and in mining, for evidence abounds in many ancient workings that mining of copper, for which this part of Chile is now famous, was extensively conducted. Among the objects also are spade-like implements with attached handles; wooden poles with slate blades lashed at their ends by means of leather strips; weaving implements, including wooden spindle-whorls—

all are characteristic of the area. Curious spoon-like objects of wood and of bone, ladles, spatulas, and carved tubes containing thorns used in scarifying, are common both to this section of Chile and to the Diaguite region of Argentine, as likewise are small wooden boxes, curious bells or gongs, and combs with splint teeth. Basket plaques, resembling those of our Southwest, are common. Ropes of vegetal fiber and vicuña-wool, and leather thongs, are abundant. The singular wooden hooks with vicuña-wool rope tied to both ends are supposed to have been employed in lashing the cargoes to beasts of burden, like the llamas. Woven bags of vicuña-wool were carried; clothing was fashioned of cotton and wool like that found in graves of the Peruvian coast; leather sandals protected the feet from the hot desert sands. In ornaments there are strings of beads of turquoise, shell, and stone. Knives and lance- and arrow-heads of chert and quartzite show high proficiency in stone-chipping. The pottery is simple in type, showing little refinement in form or decoration. There is a vast quantity of archeological material in this region, but thus far only desultory scientific work has been carried on, much of the material to be found in museums having been dug by treasure-seekers.

In southern Chile are found the Araucanians, whose habitat was the province, of Temuco, Mailleco, and Cautin. These Indians, the most prominent tribe in the extreme southern part of South America, resisted successfully the Inca invasion. Little of their early history is known, and of the archeology of their country practically nothing is recorded. The Museum possesses a

Araucanians

few ancient pottery vessels from Temuco which display a local type of decoration and characteristic forms, especially the pitchers, a class of vessels that extends into Argentine. Several stone axes and club-heads, and a few personal ornaments of thin copper, such as still survive among them, end the present exhibit of Araucanian handicraft.

ARGENTINE

(Case 355)

KNOWLEDGE of the archeology of the Argentine Republic is confined chiefly to its northwestern provinces. In a region of mountains and desert plains the climatic conditions are much like those of the Atacama desert which extends well into the territory, hence wooden objects, basketry, and other usually perishable materials have been preserved to a remarkable degree, as on the Peruvian and Chilean coasts. The country has been extensively investigated in recent years by Argentine archeologists, whose researches reveal certain striking similarities in types of artifacts with those of southwestern United States. There appear to have been more than one culture in this great region, but the most generally recognized has been called Calchaqui, now more usually known as Diaguite. Of the language and affiliations of the Diaguite people nothing is known; but there is evidence of an invasion from the Andean region of Peru and Bolivia that profoundly influenced the Diaguite culture. This was in relatively modern times—at a period later than the establishment of the so-called

Tiahuanaco culture of upper Peru. As on the Peruvian coast, nearly everything buried with the dead has been preserved; but in the Museum collection there is only a small amount of material illustrating this culture area, no specimens of wood, basketry, or textiles being present. The provinces represented are Tucuman, Salta, and Catamarca.

Of interest are the large funerary urns, of a local type as to form and decoration; these are polychrome, with two handles on the body, and having broad, elongate necks, with flaring rims. Art in stone is represented by axes, and tiny, well-chipped arrowpoints. Of a great variety of copper ornaments, utensils, and implements, only a few implements are displayed. Turquois was extensively employed for necklaces and small ornaments, and spindle-whorls of stone, of a type different from those of Peru, are common. A feature of the Diaguita region is the series of small human heads and figures of earthenware, analogous to those from northern South America.

ETHNOLOGY OF MEXICO, CENTRAL AMERICA, THE WEST INDIES, AND SOUTH AMERICA

WEST HALL AND STAIRWAY HALL

MEXICO AND GUATEMALA

(Cases 303, 315 G H, 331 G, 333 A B)

THE present population of Mexico and Guatemala is largely of Indian origin, and in many parts of these

The present Indians two countries ancient customs, religious beliefs, and languages hold sway. In Guatemala alone sixteen Maya dialects are still spoken. While it is almost impossible to determine the exact proportions of pure-blood, mestizo or mixed-blood, and white, there are probably about 5,000,000 full-blood Indians and as many more mestizos. In the other republics of Middle America—Honduras, Salvador, Nicaragua, and Costa Rica—there has been an even greater admixture of white blood, hence Indian communities still speaking their aboriginal tongues may be found only in widely scattered settlements.

Languages

Recent studies of the linguistic families of Mexico have divided them into seventeen groups, with one hundred and eighty dialects; but it is the opinion of students that linguistic research will ultimately resolve these into three mother tongues, namely, Nahua or Mexican, Otomi, and Maya-Quiche. In parts of the region where certain languages are spoken throughout wide areas, dialectal differences are found in many villages. Tribes occur as homogeneous masses in some sections of Mexico and Guatemala, while in other parts people speaking different languages are strangely intermingled. In the same settlement, separated by a single street, one may find two distinct languages, while in one Mexican town have been reported Aztec, Otomi, Tepehua, and Totonac, each preserving its independence in language, dress, customs, and beliefs, and occupying its own quarter.

Although nominally Roman Catholic in religion, the Indians of Mexico and Guatemala still retain some of

their aboriginal beliefs, although they have lost much of their knowledge of ancient tradition and religion. They are superstitious to a degree, believing strongly in omens, witchcraft, and divination. Among the Huichol of northern Mexico, the Mixe of Oaxaca, the Lacandon of northern Guatemala, and some of the tribes of the Maya-Quiche group of western Guatemala, is found greater adherence to primitive ideas than among other Indians of Middle America.

Throughout this Indian country native commerce is conducted much as it was before the Spanish conquest, and the periodic markets, the *tianguis*, are held weekly as in former times; merchandise is carried for great distances to annual festivals of certain saints, whose Customs modern shrines are built on the sites of aboriginal temples. The Indians are principally agriculturists, though certain native trades still prevail, such as weaving, basket- and mat-making, and the manufacture of pottery; and the products of these industries, for which certain villages are noted, are scattered over extended areas. Their mode of living, their habitations and clothing, vary according to environment, and especially altitude. They have changed but little under the influences of civilization.

Food consists mainly of corn, beans, plantains, and chile; the corn is made into cakes known as *tortillas*, Food or into a thin mush called *posole*, which are prepared as in times before the conquest, although to a certain extent cooking-vessels of metal are now used in addition to those of the native pottery. The chief vice of the natives lies in the almost unbridled use of alcoholic

stimulants, for they make many intoxicating drinks, as in former times, and indulge in them on all occasions.

Masks
303 A B A number of specimens, especially ceremonial masks, obtained from Indians of Guatemala, are exhibited. The masks range from ancient aboriginal types to modern examples showing the influence of whites.

Drums
315 B A wooden drum, the *teponaztli*, is displayed. Such instruments were often elaborately carved, and a few, kept from pre-Spanish times and still to be found in towns of the Mexican plateau, are brought out for use during religious festivals.

Atlatl
315 B A spear-thrower, or atlatl, used by the Tarascan Indians of Lake Chapala, Mexico, for spearing fish, is exhibited for comparison with the two beautiful examples of the same kind of implements that have survived from ancient times.

Weaving
315 G H 333 Stairway Hall The Museum is fortunate in possessing a fine series of blankets and zarapes from Mexico and Guatemala, the most interesting of which are from the former republic. These range from the coarse weaves of the Tarahumare and Otomi to the delicately made Saltillo zarapes, with their beautiful and dainty designs. Like the masks mentioned above, some of the weavings show distinctly aboriginal patterns, while others are plainly influenced by modern ideas. In the case of one example from Oaxaca, for instance, the Mexican eagle holds a prominent position.

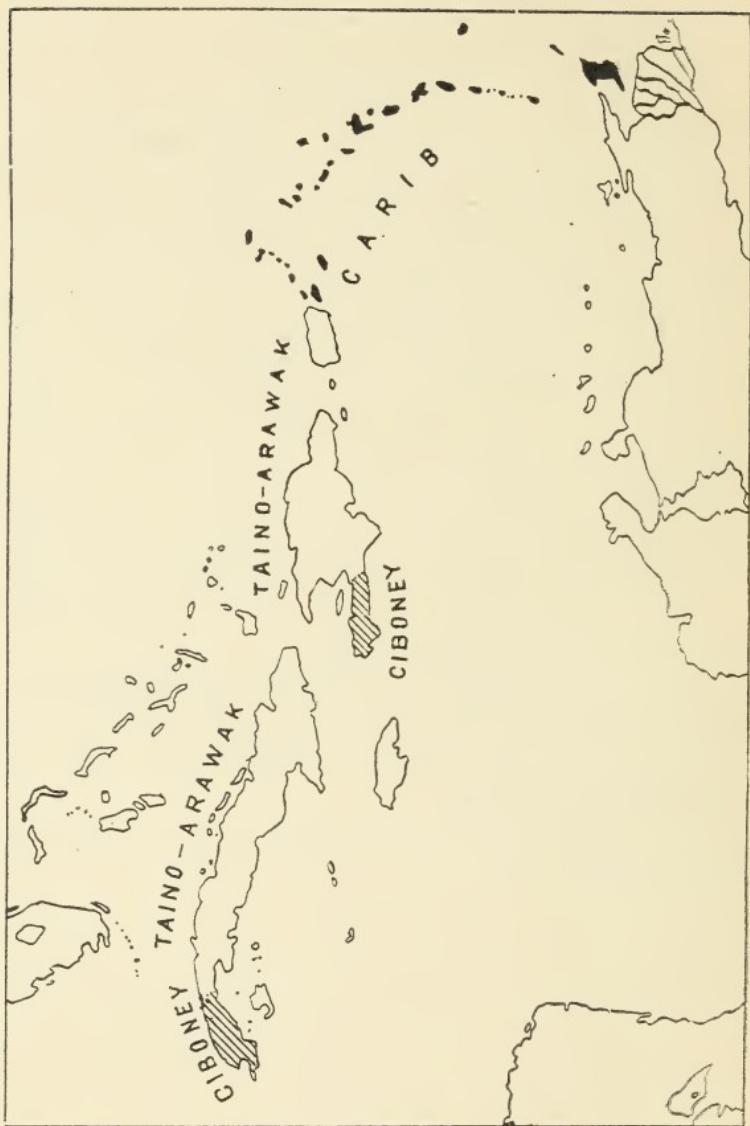
WEST INDIES

(Case 316 A, 329)

OWING to their enslavement and virtual extermination by the Spaniards shortly after the Discovery, but few persons showing Indian blood to a marked degree are left in the West Indies; yet some linger in Cuba, mostly in the eastern part, and in a few of the other islands. Most of the collection exhibited was obtained from Yara village near Baracoa, Cuba, and from scattered families in the Maisi district, survivors of the Taino. Many of the articles shown are also used by the neighbouring country people of Spanish extraction, but all seem to be of aboriginal origin. Some, however, show modification due to Spanish influence. Especial attention is called to the cassava grater, made by driving bits of hard stone into a wooden tablet.

On the lower shelf may be seen a few articles made by the surviving Carib of St. Vincent and Trinidad, and on the top of Case 329 a raft or catamaran of native type from the former island.

For a summary of the aboriginal culture of the West Indies, see page 57.



DISTRIBUTION OF ABORIGINAL CULTURES IN THE WEST INDIES (ABOUT 1492)

EAST HALL

COSTA RICA AND PANAMA

SOUTHWARD from Yucatan the advanced cultures of northern Middle America, as represented by the monumental ruins of the Mexican and Mayan peoples, gradually dwindle, and within the confines of Nicaragua and Costa Rica the last vestiges of their outposts are found. Here, however, commences a new and inferior type of culture, the northern extension of a phase of ^{General features} human life that extends well down into eastern South America, and is found in its most typical and highly developed form on the Amazon and its affluents. This culture is characterized by the use of thatched houses, usually without sides, the cultivation of maize and starchy roots to a feeble extent, the use of the blow-gun with pellets and darts in hunting, and the vestigial existence of the cultivation of cotton and the textile art. In other words, there is a great decline in the material advances made by the peoples to the immediate north. Instead of having to deal with peoples who built great temples and edifices, who were expert weavers, who depended greatly on agriculture, and who had a highly organized social and political government, there are a number of far-flung savage tribes whose chief occupation is hunting, and whose government and ceremonies are primitive in the extreme.

Owing to the discrepancy between the products of these natives and the archeological remains found in

Ancient and modern peoples their present territories in Central America, the question arises whether, like the natives of Mexico and Yucatan, they are the true aboriginal peoples of the district in question, become degenerate in modern times through contact with whites, or whether they are more recent comers from the south. In all probability they are descendants of wild bands which always roamed the jungles and forests where they now are, and that their early history is somewhat obscure because they were outshone by their more brilliant neighbors, the advanced peoples, whose wealth and achievements attracted the attention of white conquerors. It is known, for example, that some of the tribes of Panama were found in a state of simple culture similar to that in which they now are, and that they took an active part as warriors and guides in the old wars between Spaniards and buccaneers. On the other hand, there is reason to believe that the Bri bri of Costa Rica once enjoyed a higher state of culture, and may have been the makers of the remarkable pottery and the stone carvings of some of the districts of eastern Costa Rica, but relapsed into a hunter state after deportation to the Talamanca valley in relatively recent times.

COSTA RICA

(Cases 335 J, 336)

Tribes Beginning with Costa Rica, there are a number of tribes, most of which are found in the more remote mountainous districts. These include the Guatuso (whose ethnology is very little known and who speak a

language differing wholly from that of any other tribe), the Boruca, and especially the Bribri, of Chibchan stock, from whom the Museum has a fairly complete collection and who may be considered as typical of the jungle-dwelling hunting tribes of the region.

The Bribri use the characteristic thatched houses of palm-leaves, before mentioned, often without sides, for ordinary dwelling purposes. In general appearance these houses resemble closely the lodges of the Seminole Indians of Florida, and the *bohios* and *caneys* of the Antilles. The chiefs, or "kings," however, have huge, conical, thatched houses, or *palenques*, reminiscent of the grass houses of the Wichita Indians of the plains of North America.

The Bribri

Houses

The Bribri raise corn, sugar-cane, plantains, and a little cotton. Some families cultivate small plantations of *cacao*, the fruit of which they make into the drink called cocoa. They also have a fermented drink, *chicha*, made of corn, which is first thoroughly chewed and then fermented in large earthenware jars with pointed bases, similar in many respects to those found on the ancient sites of the Algonkian Indians of North America.

Food

Chicha

Pottery

They sleep in hammocks, and are experts in netting not only these articles, but burden-bags of all sizes, although these are less attractive than the more brilliantly colored examples fashioned by the Valiente tribe of the Gulf of Chiriquí.

Netting

Unlike the Indians of North America, the Bribri and their neighbors use wooden stools, usually low and four-legged, suggestive of the *duhos* of the West

Stools

Indians, but lacking the high backs generally seen on the latter. Some of the stools are so hewn as roughly to represent tortoises. The old graves of the Atlantic highlands of Costa Rica yield many elaborate carved seats and stools of stone, usually a porous volcanic scoria, examples of which may be seen in the cases adjoining the Bribri collection. Possibly the simpler wooden seats of the latter may be degenerate survivors of these ornate stools of the past.

Among the household utensils are twilled and open-work cane baskets; calabash bowls and strainers, sometimes crudely decorated with scraped designs; dishes of folded palm-leaves, and round wooden bowls. Beaters used in shredding bark for making cloth, closely resembling the tapa-cloth pounders of Polynesia, are also employed. For grinding corn the Bribri have wooden mortars and pestles; formerly three-legged stone metates were in use, but now any smooth boulder, even though it may lie in a public trail, is often made to suffice.

The clothing of the modern Bribri is very simple, the men wearing a light cloth shirt and trousers made of trade material, and the women a skirt of trade or of native fabric, and sometimes a trade cloth jacket. In former times the men wore a robe and a breech-cloth of beaten-bark fabric, or a woven cotton blanket of native make. For dress or ceremonial occasions the men, and perhaps the women, still wear woven cotton belts, and the men have also headbands of cotton of native weave. The ground-color of both belts and headbands is white, prettily striped in red and blue.

For ceremonies the men use headdresses consisting of woven forehead bands of cotton, with gay plumes or down-feathers attached so as to stand in a vertical row across the forehead.

In former times, at least, Bribri chiefs had small gold ornaments fashioned like flying eaglets, which were worn about their necks as badges of office. These eagles are identical with some of the gold ornaments found in the tombs at Las Mercedes and other localities in the eastern highlands, and may be a connecting link between the Bribri and the ancient inhabitants. The chiefs also carried carved staffs made of a hard wood called *cacique*, and usually with a crude human or animal figure at the top, which likewise were badges of their office. The Bribri in general wear necklaces ranging from the handsome examples of several strands of jaguar-teeth used by warriors, to small strings of raccoon and monkey canines which adorn the children. Strings of shell beads are common, and the chiefs have carefully wrought, large, cylindrical beads of the same material, which have the value of two cows each.

The weapons of the Bribri were formerly a combined digging-stick, or dibble, and warclub, shaped like a narrow paddle and made of hardwood; a long, simple bow, and compound arrow with a hardwood foreshaft and head in one piece, with many notches and barbs, but in modern examples often having a long shaft of hollow cane and metal points. Some of the arrows used in shooting fish have light multiple points of split cane. Tapir-hide shields were formerly employed in battle, it is said. Blowguns, longer by far than the height of

Chiefs' badges

Ornaments

War and hunting implements

Blowguns their rather diminutive owners, but generally used to propel clay balls or pellets, are used for killing small game. Possibly, in former times, at least, darts, very likely poisoned, were used with the blowguns in war.

Musical instruments Musical instruments are represented by long goblet-shape drums of wood, carefully carved and hollowed, and covered with iguana-hide. They are beaten with the hand, not with drumsticks. A larger, cylindrical, double-headed drum is also shown. Gourd rattles, with bone handles attached to one end, but not thrust through the gourd cavity as is usual in North America, are displayed.

Transportation For transportation, long, narrow, dugout canoes were used. A beaten-bark strap which crosses the forehead is employed in carrying burdens on the back.

Clans Like many North American tribes the Bribri are divided into two social groups, subdivided into clans having descent through the mother. Plural marriage was once common. There were three classes of shamans or medicine-men—the *usekera* or “high priest,” the *tsuku* who had charge of the ceremonies in honor of the dead, and the *awa* who was a doctor or sorcerer. The custom of rendering articles taboo by casting a spell on them that none but a shaman could break, **Medicine-men** was well developed. Their divinities were a supreme being called Sibu, and several good and bad subordinate deities who quarreled over the fortunes of men, who are believed to have been born from seeds.

The ceremonies, which are few and not highly developed, were concerned chiefly with funeral rites. The *chichara* is merely a drinking bout; but a ceremony

for "quenching the fire" is an all-night rite in honor of the dead, held nine days after the demise. This is characterized by a feast and the singing of ceremonial songs; a fire is lighted with a hand fire-drill, the taboo is lifted from the belongings of the deceased, and the fire is quenched.

Ceremonies

When a Bribri is mortally ill he is carried out of his lodge to a hut especially erected to receive him, for if he dies at home the dwelling must be burned to destroy the influence of evil spirits. After his last breath, a special functionary called *oko*, who alone can handle the dead without contamination, wraps the corpse in bark blankets and plantain-leaves, bundles it in a hammock, and places it on a protected platform in the woods, where it remains for a period of five years. Then is held a ceremony known as "bone dance," when the skeleton of the deceased is taken from its scaffold and put in a permanent tomb. For a period not exceeding twenty-two days the mourners feast their friends, while sacred songs are chanted. At the end of the ceremony the guests depart; the *oko* wraps the bones in a bundle, and they are transported to a communal burial-place. Warriors were honored with a slightly different ceremony in which a masked clown exorcised evil spirits from the onlookers.

It is believed that the souls of the dead travel on a long journey to the other world, crossing dangerous rivers beset with alligators, and at last arriving in the beautiful realm of Sibu, the supreme deity.

A brochure on the ethnology of the Bribri has been published by the Museum.

PANAMA

(Cases 371 A, 372, 373 L)

Tribes THE tribes of the Republic of Panama are represented by collections from two representative tribes, the Kuna, Cuna, or San Blas, and the Chokoi.

Kuna or San Blas The Kuna are coast dwellers, who, owing to the treatment which they received from the Spaniards when their country was first colonized, have until very recently been bitterly hostile to Caucasians, steadfastly refusing to permit any white man to remain over night in their territory. It is also said that any native woman who mingles her blood with that of aliens is punished by death.

The original home of the Kuna extended southward from the valleys of the eastern Chagres watershed, covering both sides of the continental divide between the present Canal Zone and the bays of San Miguel and Atrato, but their range is now somewhat more restricted.

Houses Their houses, though usually built on dry ground, are often raised on piles, especially in the rainy season, to keep their belongings dry and to protect them from the attacks of insects and reptiles. While the roofs of the dwellings are thatched with palm-leaves, the houses on the whole are superior to the hovels of the Costa Rican Bribri. Many houses are now provided with such appurtenances of civilization as sides, windows, and doors.

The two islands of Nargana, off the coast, are covered with large buildings, averaging 150 feet long by 50

feet broad, with the ridge of the roof 30 to 40 feet above the floor. Directly under the ridge extends an alley, between two ranges of high pillars which support the middle part of the structure. On each side of this passage other upright posts divide the space into square apartments, each probably occupied by a single family. The side walls are made of poles lashed together with vines, and there is a low door at each end of the structure.

The Kuna are expert seamen, and venture far from shore, in their dugout canoes, in pursuit of fish and tortoises. Excelling also in agricultural pursuits, their coast is fringed with coconut groves, and they raise large crops of plantains, corn, rice, cassava, yams, and some cacao. At the time of the blossoming of the fruit trees, of which the Kuna Indians have most of the tropical varieties, invocations are made by the shamans to propitiate the evil gods and to invite the blessings of the beneficent ones. For cacao, for example, prayers are made to a being personified in the ever-traveling sun.

The men weave hats in the style of those of white men, and the clothing of the whites has been generally adopted. They still wear native earrings consisting of heavy gold discs, and practise facial painting to some extent. The women wear short skirts of red or blue fabric extending from hips to knees and consisting of single seamless pieces of calico rolled about the body. The torso is covered with a loose, short-sleeved blouse. Over these two garments is thrown a robe that reaches from waist to ankles.

Livelihood

Ceremonies

Dress
372 A

These garments, as shown by the examples displayed, are made of colored cotton, composed of various layers of appliquéd patterns neatly sewn together, producing many artistic and curious designs. Similar garments were noted among them by the explorers of two centuries ago. All the females wear gold nose-rings, and usually earrings or discs of the same metal, while their necks are laden with red, white, and blue beads, and silver coins. Animal-teeth are prized for necklaces by men and boys. Remarkable beaded armlets or cuffs are also worn, in which the beads are so carefully strung as to produce a design when wrapped about the arm or the leg, although when unwound the strings appear to be a jumble of colors. A similar technique in porcupine-quills and beads is often used to adorn ceremonial pipes among the Indians of North America. They use body paint and tattooing, and on holidays and ceremonial occasions the men wear both girdles and headdresses made of the plumes of brilliantly colored tropical birds.

The Kuna sometimes wear on their heads a narrow band, called by a name meaning "counter-poison," which is made of bark fiber from certain plants, with which they alone are acquainted. This band is used as a ligature in case of snake-bite, for the fibers of which it is made are supposed to have the property, real or imaginary, of healing the wound.

Weapons For weapons the Kuna use bows and arrows, blow-guns with poisoned darts, and lances.

The Chokoi are similar in many respects to the Kuna, except that, living in the interior, they are more remote

Ornaments
372 A

from civilizing influences and consequently are more primitive. Unlike the Kuna, they are monogamists. They wear less clothing, and make abundant use of facial and body paint of annatto and soot, and tattooing, often in designs reminding one of the appliqué figures on San Blas clothing.

Both the Chokoi and the Kuna have many wooden household idols, of which a series is exhibited. These bear an outward resemblance to the ancient stone idols of Costa Rica.

The Chokoi poison their arrows with the skin secretion of a venomous tree-frog, whereas the Kuna, it is said, use the vegetal *wurale* or *curare*. Their houses, like those of the Bribri of Costa Rica, are more primitive than those of the San Blas or Kuna, and, like the latter, they use clay vessels of native manufacture to ferment their *chica*, or chewed corn intoxicant. Both Kuna and Chokoi make many handsome twilled baskets of split cane, and have an abundance of calabash utensils.

Their musical instruments consist of the usual tubular drum of the Central American tribes, and gourd rattles, the latter with the handle thrust through the gourd in North American style.

Both Kuna and Chokoi make excellent netted fiber carrying-bags and hammocks. Some glass-bead belts are found among them, but these are quite dissimilar in design to those of the North American tribes.

Household
idols

Arrow
poison

Houses
Utensils
371 A

Musical
instruments
371 A

Weaving
371 A

ECUADOR

HIGHLAND PEOPLE

(Case 365 C D)

Habitat and Condition THE Indians living in the great inter-Andean valleys and highlands of Ecuador, like those of similar regions in Peru and Bolivia, are largely Christianized and use the Spanish language to a considerable extent, although there are many villages in which the Quichua language of Peru is almost exclusively spoken. With the exception of geographical place-names, there exists no trace of the indigenous languages of the region before the advent of the Quichua early in the fifteenth century.

Early tribes It is believed, however, that the present population consists of rather pure descendants of these earlier tribes, such as the Palta, Cañari, Puruha, Quillansinga, and Cara, but the submergence of their individual cultures through Quichua influence is marked. None of these tribes has been studied ethnologically, and while nominally Christians they still preserve many native traditions, folklore, and customs, among the most curious of which is the couvade.

Houses Their dwellings are built of either adobe or stone, with thatched roofs, being adapted to the temperate and cold climates of the elevated valleys and mountain slopes. These Indians are expert in spinning and weaving, in leather-working, and pottery-making.

Clothing Their chief occupations, however, are agriculture and sheep-raising. They clothe themselves with woolen outer garments and cotton inner ones, and wear sandals

made from the fiber of the agave. Some of the primitive objects which they still use are cockle-bur wool-cards, pan-pipes of reeds, an ancient type of pins of base metal for fastening their mantles, fashioned in the same shape as the *topos* of copper, bronze, and gold, found in ancient graves. The small collection illustrating the highland people was gathered in the villages in the vicinity of Riobamba, province of Chimborazo.

Implements

ORIENTE PEOPLE

The Quichua-speaking Indians of the almost treeless highlands have little or no relation to the tribes which inhabit the forested eastern slopes of the Andes and the upper reaches of the Amazonian drainage system—the great Oriente region of Ecuador. The ethnology of these tribes is typically that of the tropical lowlands, covered with dense forests, as in the interior of Brazil and in parts of Peru, Bolivia, Colombia, Venezuela, and the Guianas—the great heart of South America. The Jivaro and Cayapa tribes, which are well represented in the Museum collections, are typical of the group.

THE JIVARO

(Cases 365 A B E F, 366)

The Jivaro Indians are composed of a group of nine closely related tribes—Huambisa, Tamora, Cuanduasi, Ashira, Andoa, Copotaza, Arapeca, Chargaimé, and Upano, inhabiting the virgin forests of the rivers Pastaza, Morona, Upano-Santiago, and their affluents,

Traces and
Habitat

a district politically divided between the governments of Peru and Ecuador. The Jivaro are one of the most numerous groups of Indians in South America, numbering in all between fifteen and twenty thousand. They are also the most warlike people of the continent, and ever since 1599, when they rose against the Spaniards who had settled in their territory and virtually exterminated them, the whites have thought it best to leave them unmolested in their ancient seats.

Government Divided among themselves, the Jivaro recognize no uniform tribal organization or common political authority, except in time of war, when a war-chief is selected with authority over all. Blood feuds and warfare are constantly going on, stimulated by their belief in witchcraft. Indeed warfare is the traditional and accustomed occupation of the men, and the head of an enemy is not only a trophy to a Jivaro warrior, but a fetish imbued with supernatural power. The great victory feast which follows a successful onslaught forms a part of the religious cult of the tribe. The training of boys is directed almost wholly toward making them brave and skilful warriors, and hatred of their hereditary foes is constantly taught them as a matter of virtue and practice. Youths are encouraged to follow war-parties even before they have been subjected to the ordeal that admits them to manhood.

Although the Jivaro are polygynous, they hold their wives in high esteem, and often go to war over their abduction by enemies.

Like many South American tribes, the Jivaro are largely agricultural, and grow maize, cassava, sweet potatoes, and plantains. They also are expert hunters, and poison and trap fish and game.

The dress of the Jivaro for ceremonial occasions is gorgeous. Lavish use of various gay-colored feathers, especially of parrots and macaws, for headdresses, is common. These often receive additional adornment in the shape of brilliant green and bronze carapaces and wing-sheaths of various tropical beetles that possess a striking iridescence as they swing in pendants or form the encrusted covering of wicker head-bands.

For everyday use the Jivaro wear kilts and capes woven of cotton, or loose, sleeveless bark shirts, and shaggy grass rain-coats. Some kilts are made of ocelot-skin, on which are fastened seeds, porcupine-quills, and beetle-wings. The men wear long cylindrical plugs in their ears, and the women labrets of similar shape, but smaller. Women's garments are a skirt of cotton or bark, and a robe of the same material thrown over one shoulder and fastened under the arm. Necklaces made of animal-teeth, such as those of jaguars and crocodiles, and of tubular bone beads, shell plates, nuts, and bright-colored seeds, abound.

The Jivaro dwell, not in villages like other Indians Houses of the Amazon watershed, but in communal houses occupied by several closely related families, built on the summit of a high hill or in an easily defended bend of an affluent of a larger stream so that the inhabitants are always hidden from the principal lines of travel.

Dress and
Adornment
365 ABEF
366

These communal houses are oval or circular, with close-set walls of poles and a conical thatched roof. In times of war the lodges and even the fields are fortified by a stockade, and a double wall is made for the house itself. Within the house along the inner walls are built a number of small partitions, about a yard high, also made of poles, each having a loop-hole through which the defender can shoot, should the enemy force an entry. The house has a door at each end, one for the women, the other for the men, usually consisting of half a dozen poles bound together with vines at the top, while the nether ends are free and may be separated, three on each side, making a small triangular opening through which one man at a time may squeeze. At night the poles are fastened to a transverse bar within. Even the outer wall of a fortified house has a similar door.

Before firearms were so generally used; the chiefs of the Jivaro used war towers at one end of their houses. These were four-sided, and were from 90 to 120 feet high. On the summit was a room, about 12 feet square, with walls a yard high, to protect the defenders from the lances of the enemy. The foundation of the tower was made of log pillars, and the ascent was by notched log ladders. Before the houses traps were often made by digging round holes in the ground, 4 or 5 feet deep, and large enough to receive the body of a man. At the bottom sharpened stakes were set. The pit was covered with small sticks and concealed with leaves. Another type of man-trap, set in the paths, consisted of

a stout sapling, bent down, and with eight wooden spikes lashed to it like the teeth of a comb. When an unwary foe followed the path and tripped on the cord which allowed the bent sapling to spring forcibly back, he was felled by the blow. Nowadays set-guns are placed in the same manner. The principal weapons of the Jivaro are the lance, and the round shield of wood or tapir-hide. Blowguns with poisoned arrows are used in hunting, but not for war.

Weapons
365 F

Household appliances consist of fire-sticks, gourd or calabash dishes and bottles (often bearing incised designs), excellently netted carrying-bags, and pottery bowls and jars which often have intricate geometrical patterns on their surfaces. They also have an abundance of neat basketry.

Household
goods
365 BEF

The Jivaro sound alarms and send messages by means of a great hollow log-drum, or *tundúy*, similar to that of the Tucano Indians of Brazil, exhibited on the central pyramid. The *tundúy* is beaten also to summon the spirits which are supposed to inhabit certain narcotic drinks taken by the Jivaro on ceremonial occasions.

Drums

The most striking feature of the Jivaro exhibit is the collection of shrunken sloth and human heads, and a shrunken human body, that of a negro, obtained from these warlike Indians. The human heads are trophies of slain enemies from some other tribe than that of those who prepared them. The method of their preparation, which varies somewhat in different localities, is as follows:

Trophies
Shrunken
heads
366 A

As soon as a Jivaro warrior has slain a foeman, he cuts off the head as close to the body as possible. After an appropriate ceremony a slit is made through the scalp from the crown downward, when the scalp and the skin of the face are carefully flayed from the skull, attached to a vine handle, and immersed for a while in boiling water, which causes the skin to contract a little. It is then set up on a stick fixed in the ground, and allowed to cool. The skull itself is discarded. The incision in the skin is now sewed with a fiber thread, and a ring made of a piece of vine is attached to the opening at the neck to hold it open. Three hot stones are first placed inside as a part of a magic rite, then it is reduced in size by filling more than half with hot sand, which is kept in motion in order that it may act uniformly on all parts of the trophy. When the sand cools, it is taken out, reheated in a broken clay pot, and returned. Each time the sand is withdrawn the scalp is scraped inside with a knife in order to remove the charred integument. As the trophy dries, the face especially is manipulated so that it retains its human features, even when greatly reduced in size.

The work of head-shrinking is commenced on the return from the scene of battle, and finished ultimately at home, where it may be kept up for several weeks, the same sand and pottery fragment being used throughout the process. At length the head is reduced to about one-fourth of its normal size, and becomes hard and dry. Three small wooden pins, painted red, are passed through the lips, and around them a fine cotton

string, also colored red, is wound. This is done to prevent the slain enemy from cursing the victorious warrior. Lastly, the trophy is treated with charcoal. The heads of sloths are taken and prepared because these animals are thought to be transformed warriors of another Jivaro tribe.

The ceremonies that go hand in hand with the preparation of the head, together with the subsequent rites, are elaborate and expensive, as well as tedious. Immediately on their return the victors pass through a rite of purification, followed by others at some later time, all sufficiently curious and interesting, but not possible more than to mention here. After these ceremonies the Jivaro head-taker may dispose of the head or keep it as a trophy. In recent years the demand for these heads as souvenirs has caused the Indians to extend their head-hunting activities, even to the capturing of the heads of white travelers, which also ultimately find their way to the market. Laws forbidding the practice of head-taking and shrinking have repeatedly been passed by South American countries, but they have proved to be difficult of enforcement.

When a man dies he is not buried, but is left in his bed with all his belongings about him. The house and its surrounding gardens are deserted, and no one ever goes back to the house or takes anything from the fields.

Ceremonies

Funeral
rites

THE CAYAPA

(Cases 363, 364)

IN the northwestern part of the Province of Es- Habitat
meraldas is found the Cayapa tribe, which occupies

the main and tributary streams of the river that bears its name, within comparatively easy reach of the ocean, which they usually visit at least once a year. These Indians number 1500 to 2000. Their material culture is well represented by the collections in the Museum.

Houses Excessive rainfall and floods are frequent in this region, hence the Cayapa have adopted a practical type of dwelling to meet the conditions imposed by their tropical environment. The typical abodes are generally built as near as possible to the river, which affords their means of travel and contributes in other ways to their mode of life. These dwellings are pile structures, which vary in size according to the size of families. Occasionally a house is occupied communally. The floor of a house is from 4 to 12 feet above the ground, its height being very exactly gauged to escape the floods of the particular locality. The sides are left open; the roof, thatched with palm-leaves, is built steep to shed rain; and access to the dwelling is gained by means of a ladder.

Agriculture Being primarily agriculturists, the chief means of livelihood of the Cayapa is by tillage. As foods they cultivate chiefly plantains, yuca, rascadera, a few pineapples, and a little corn. Bananas are grown solely as hog feed. Cacao is cultivated for the market. Occasionally a cotton plant, either brown or white, is grown, but this is usually wild. Rubber is gathered from the jungle, and a few trees are cultivated. Their cultivated food products are augmented by various wild growths, in which the jungle abounds, as it does

Food

also in both game and fish. Maize and potatoes, cultivated long before contact with Europeans, were an important part of the Cayapa food supply when they resided in the higher Andes, but do not thrive in the low altitude and the great humidity which characterize their present home.

Various food plants were introduced by the Spaniards, among them sugar-cane, which is now grown extensively by the Cayapa. Its chief use is for making rum, but a syrup and also a kind of preserves are produced in small quantities. The cane is crushed between the rollers of a home-made mill, from which the sap flows into a wooden trough or a small canoe. The sap is next boiled in a large pottery vessel, the froth being skimmed with calabash strainers. When the boiling produces no more froth, the syrup is regarded as cooked and is then allowed to ferment for about three weeks in large pottery vessels. The distilling is done in a crude but effective native still by a process described on the label. A special flavor is imparted to the resultant rum by adding aromatic herbs. The concoction is consumed at fiestas and during various ceremonies.

In aboriginal times the blowgun was the chief hunting implement. This is a slender tube, 6 to 9 feet in length, made of palm-wood wrapped with native fiber and covered with black wax. From the blowgun are shot light palm-wood darts, about a foot in length and not much thicker than a knitting-needle. Their lightness is overcome and the darts are given force by

Distilling
appliances
363 C D

Hunting
implements

a weight of wet clay placed near the point, and native cotton is wound as a wad about the dart near its middle to make it fit tightly in the tube. The sharp tip of the dart is charged with a virulent vegetal poison, which, when dry, will not easily rub off, but when the dart enters the game or the body of a man, death speedily ensues. A small quiver is made especially for carrying the blowgun-darts. Lances of hard palm-wood, and more recently the bow and arrow, were also used in hunting wild hogs and other large game.

War The Cayapa were always peaceably inclined, but occasionally wars were forced upon them, on which occasions the blowgun was used as a weapon, although the lance was preferred. This weapon, 6 or 7 feet in length, is made of palm-wood, sharply pointed. The bow and arrow, the use of which is claimed to have been derived by the Cayapa from their former enemy inhabitants of the Rio Cayapas, were comparatively little used except in war.

Fishing The numerous streams of the region are well stocked
363 A, 364 A with fish, many species of which are used as food, and are still caught by six different methods. There are three types of nets—the large set-net, the conical or casting net, and the small dip-net. These are all used to a considerable extent, especially the set-net, but the impounding trap, the pole and line, and the gig or fish-spear, are much more generally employed. Of these six devices, only the set-net, the dip-net, the trap, and the gig appear to be of aboriginal origin. All the nets are made of native fiber string, and the traps and the gig of hardwood and bamboo.

The rivers of the Cayapa territory provide practically the only means of travel, owing to the dense jungle. The few trails are seldom used except in hunting larger game. Certain main trails lead from the head of canoe navigation to points in the high Andes, such as Quito. All the habitations are situated along the banks of the rivers, and to pass from one to another of these the dugout canoe is used; in fact, the canoe is one of the most prominent features in Cayapa life. Everyone begins in early childhood the training which ultimately makes him an expert canoeist.

From the important place the canoe holds in the life of the people, it is natural that the art of canoe-making should have reached a high state of perfection. Only a few species of trees furnish wood that is hard and tough enough to be suitable for the purpose. Having found a tree of the desired kind, it is felled with an axe, and the canoe is roughly fashioned from a section of its trunk. Allowed to dry and season for a month or so in the shade of the jungle, it is next hauled to the river and paddled to the home of the owner, where it is worked down and finally smoothed with adzes to the ultimate shape and finish, and is further seasoned, before being caulked and painted with wax. The black beeswax is applied hot with a brush made from a coconut-husk. Sometimes along the outer surface of the gunwale are placed various designs in wax for decorative purposes. For this reason certain stamps, made of the light, soft wood of the balsa, are used. These designs, however, bear no symbolic significance.

Canoes
362, 364
(top)

Wax brush
364 A

Stamps
364 A

Dress
364 A B

The everyday dress of the Cayapa men consists chiefly of two garments—a very small, tight-fitting clout, and an improvised shirt of calico or of gaudily figured bandana handkerchiefs. On special occasions, such as feasts and other gatherings, a man adds necklaces of beads, buttons, and silver coins; wrist-bands and neck-bands of small white buttons; and decorations upon the face and exposed parts of the body in red, yellow, or black paint. The cloth used is woven by the women, as is the woman's skirt or manta, but all sewing is done by the men. It is said that formerly, when the Cayapa were mountaineers, they used the poncho, which at present is so common among the Indians of the interior Andean region; but on migrating into the warmer and more humid coastal region, the poncho was found uncomfortable and gave place to the present-day costume. Neither men nor women wear native footgear.

Practically the only time that babies are clothed is while they are sleeping; they are then tightly wrapped and bound with cloth, but without cradle-board or basket.

Some of the women perforate their ears and suspend from them, as ornaments, small strings of beads or other bright objects.

Hairdress
Body-painting
364 B

Aboriginally both men and women wore their hair long, without braiding or other special mode of dressing, but now long hair is worn only by the women. A characteristic feature of Cayapa life is the custom of painting the face and other exposed parts of the body.

with vegetal pigments on special occasions. The designs, as those on various objects, are sometimes named, but no symbolic meaning is attached to them, as they are merely decorative. The paint is usually applied with the finger, but sometimes wooden stamps are used in lieu of brushes.

The household effects of the Cayapa consist of implements and utensils of pottery, calabash, stone, and wood. The uses of all these appliances, many of which are displayed, are too numerous to mention.

Both hard and soft textiles are made in great variety. Baskets of many forms and in several different technics are made of various materials. Excellent mats and fans are manufactured from palm-fibers. Designs are sometimes produced by variations in technic, very little color being used.

Most notable are the soft textiles, woven of native cotton fibers and of the fine vicuña wool from the Andes. The beauty and intricacy of the patterns in various native colors is most remarkable, considering the crude loom upon which this work is done, and the even more simple spinning apparatus.

The wooden benches, or seats, are of interest, because of their resemblance to the prehistoric stone seats from the province of Manabí, Ecuador, exhibited in the East Hall (see page 107).

Calabash implements and utensils are now widely used in this region, but it is said that in former times pottery was largely employed for the many purposes which various receptacles made from calabash now

Domestic
appliances
363, 364

Textiles
363 C, 364

Wooden
seats
363 A B E

Calabash
objects
363 A F

serve. They are used as containers for all kinds of liquids, and sometimes are perforated to adapt them for use as sieves or strainers, such as are employed in making green-corn mush and in distilling. These receptacles are commonly ornamented with incised lines or figures of mammals, birds, and human beings.

Pottery The Cayapa make rather crude, heavy, pottery vessels, perfectly plain except when incised lines and dots are sometimes impressed in the rim or the shoulder. The process of manufacture employed in making these vessels, with the exception of the decorating, is the same as that of some of the North American tribes, illustrated by the series displayed on the First Floor.

363 A B Religion The primitive religion of the Cayapa consisted of a belief in a great number of spirits or powers inhabiting, with several other classes of beings, flat, square worlds of equal size. The lower world supports our world, and ours supports the upper. Beyond the edges there is nothing.

The primitive ideas of the Cayapa are now more or less mixed with introduced religious conceptions. However, a few old beliefs prevail. Among these is that of the *ku'mi*, or soul, which inhabits every human body and which has the power to leave the body during sleep, and of traveling about at will. In their travels these souls are subject to considerable danger. A shaman, for instance, may gain the confidence of one of these wandering souls, and by inducing it to drink intoxicants, insert within it some object which will work ill. On returning to the body the soul takes

with it this malevolent object, which also enters the body. As a result, illness follows almost immediately, and the person dies within a short time unless properly and promptly doctored by a shaman.

Shamans,
charms
364 B

After death, souls travel about as they do in sleep, frequenting burial-places and former homes. They would, if unmolested, do this indefinitely, but, owing to the danger to the living from their presence, means are taken to expel them. The shamans do this expelling by spraying the infested places with decoctions, blowing tobacco smoke, and reciting incantations.

Many of the minor spirits which they believe wander about the world can inhabit any object of unusual form. Many are benevolent, while others are always malevolent, or both, as occasion demands. Among the most important of the major spirits are thunder, lightning, various giants, cave spirits that live in the mountains, and many others that inhabit the waters of the river.

VENEZUELA

THE MACOA

(Case 371 B)

THE Perijá mountains forming the frontier of Venezuela and Colombia are inhabited by a large body of Indians known by the generic term Motilones; they are divided into various subtribes which take their names from the rivers whose headwaters they inhabit. The natives of this region from earliest times have

General
character

resented intrusion by whites, for which reason, and because of the inhospitable character of their country, they have been little affected by civilization. The climate of their territory, in latitude 10°N., is not agreeable, for there is abundant moisture, and on account of the altitude cold and fog are so prevalent that the Indians have been called "People of the Mists." The trails to their haunts are made as obscure as possible, owing to their reluctance to have even the neighboring tribes learn of their whereabouts, and to an inherent fear of raids by Venezuelans.

The Motilone group is represented in the Museum collections by objects from the Macoa, a subtribe living on the headwaters of the Macoita, a tributary of the Apon, which may be regarded as typical of all the divisions.

Houses The Macoa houses are rectangular shelters of poles tied together with ropes made of creepers and thatched with palm-leaves obtained from lower altitudes. The settlements are widely scattered; indeed no two houses are found in close proximity.

Customs The Macoa are peculiar among the Indians of Venezuela in that the males perform the agricultural work, while the women do the weaving, which is exactly opposite to the custom among their neighbors, the Aruaco and Gajira. It is also said that their feast, birth, death, and marriage ceremonies, hunting rites, and games, are different. The Macoa are one of the few tribes of the American tropics who do not sleep in hammocks, preferring to lie upon woven grass mats.

Both men and women habitually dress in heavy Dress robes of native cotton fabric, instead of going naked, or nearly so, by reason of the moist, cold climate of their mountain territory. Both sexes are seldom seen without an abundant use of facial paint. The Hats men formerly wore plaited straw hats with conical crowns, surrounded by bands of highly colored toucan-feathers, examples of which, with a carrying case, are exhibited; but these hats have been superseded by cylindrical woven cotton head-bands, sometimes decorated with colored seeds. The women wear no head-dress except crowns of scarlet and black seeds, and they also affect bandoliers and necklaces of the same material.

The Macoa depend chiefly on cassava, yams, plantains, and game for their sustenance. Fire is made with hand-drills, but food is eaten when only half cooked. They have the usual intoxicating drink, *chicha*, commonly found throughout northern South America, but apparently they do not go through the customary process of masticating the material used in making the drink, in order to induce fermentation. The *chicha* is used largely to provide entertainment during a ceremony devoted to singing and drinking, when all the inhabitants of a given village, without regard to age or sex, pass into a state of debauchery.

The Macoa women not only make various receptacles from gourds and calabashes, but they have well developed the art of basketry, manufacturing utensils of both twilled and openwork weave. Fans Weaving of the same materials and technic are also found.

Being excellent textile workers, they weave cotton garments on primitive looms.

Weapons The arms of the Macoa consist of bows (which they sometimes use as quarterstaffs in fighting), and arrows with reed shafts and hardwood foreshafts attached with ornamental lashings; but blowguns are unknown, and neither lances nor warclubs are seen. Macoa boys learn archery while very young, and one of their favorite games is imitation warfare, in which they shoot at each other with arrows tipped with corn-cobs.

Musical instruments Musical instruments are conch-shell trumpets, pan-pipes, flutes, and flageolets, but they possess neither drums nor rattles. One of the flageolets exhibited is of especial interest because of the large wax mouth-piece set at one side of the proximal end.

BRITISH GUIANA

(Cases 367-370)

Arawak and Carib THE natives of British Guiana are of special interest because they belong principally to two great stocks, the Carib and the Arawak, offshoots from which early migrated to and settled the West Indies from northern South America. The tribes represented in the Museum's ethnological collections are the Carib, Waika, Arekuna, Akawoi, and Macusi of Carib stock, and the Atorai, Arawak, Taruma, and Wapisiana of Arawak affiliation.

Distribution Geographically British Guiana may be regarded as consisting of three distinctive territories—the coast, the forest, and the savanna regions. The coastal district

is inhabited principally by the Arawak, with here and there a Carib settlement. The forest region is occupied almost entirely by tribes of Carib origin, while the savanna country has a mixed population, being occupied by the Arekuna and Macusi, who are Carib, and the Arawak, Atorai, Wapisiana, and Taruma, together with remnants of other tribes not represented in the Museum collections. The culture of all these peoples is so intermingled that it is difficult to segregate that of any given tribe.

The houses of these Indians vary only sufficiently to meet the exigencies of environment. The natives of the coast formerly built shelters on piles over the water, such, no doubt, as those which the early Spaniards found on the shores of Venezuela and which prompted them to give the name, which signifies "Little Venice," to that country. In recent years these Indians have established their settlements farther inland, on high, dry ground. In the forest region, because of the shelter afforded by the surrounding trees, the dwellings are rectangular structures of poles supporting a thatch of palm-leaves. The two gable ends are usually open, while at the sides the thatched eaves almost touch the ground. The floor is the natural earth. Occasionally a round shelter is found among these people. The houses of the savannas, large enough to shelter several families, are almost invariably round or oval, with substantial walls of wattle and mud, often two feet thick, as a protection from the cold winds of the highlands. A short distance from the main dwelling

Houses

a dome-shape structure of palm-leaves serves as a kitchen and a sleeping-place for the women, and not far off a third shelter, a mere shed, is built for the accommodation of visitors. Among the Arawak tribe a partition of palm-leaves is often provided to give a portion of the house more or less privacy.

Clothing
367 A F
368, 369

Little in the way of body covering is used by the Indians of British Guiana. The men wear a breech-cloth made usually of trade materials, but occasionally it is fashioned from the beaten inner bark of a certain tree, or of cotton cloth of their own weaving. The dress of women consists of a small apron woven on a simple bow loom with artistic designs of varicolored glass beads. The enormous quantities of these beads introduced into the colony by traders are gradually supplanting the seeds and teeth once so extensively employed.

Arm and leg binding

The Arawakan Indians often bind the fleshy parts of their arms and legs with ornamental wrappings so tightly that the ligatures cut into the flesh and make their wearers appear as though deformed. This type of ornamentation was noted as being peculiar to natives of this stock wherever they were met by the early explorers, even in the islands of the West Indies.

Carib adorment

The Carib women pierce the lower lip with one or more holes, in each of which a wooden pin, point outward, is worn. The men also pierce the lower lip, from which are suspended strings decorated with pieces of red or white cotton, surmounted by a small, belt-like object of bone or shell, and to the nasal septum they suspend

a crescentic ornament of metal. The men, and sometimes the women, also pierce the lobes of their ears, in which they wear a wooden pin, or a straw sometimes ornamented with hummingbird and other feathers. Face and body painting is customary, sometimes only in blotches of solid color, but often designs are worked in various hues. Necklaces, armbands, and anklets, made of a variety of colored seeds, animal-teeth, feathers, and glass beads, are worn by both men and women.

On festive occasions the men wear elaborate head-dresses and other paraphernalia of brilliant feathers, and of iridescent beetle-wings, which tinkle with each movement of the wearer. The feathers of the head-dresses are supported by a woven basketry base. The women's dress on such occasions is less elaborate, for they wear no feathers, but adorn themselves with quantities of seeds and beads in the form of ropes around the neck, as girdles about the waist, and as armbands, wristlets, and anklets. Ornaments for children closely resemble those of the elders, except that special kinds of seeds are used.

The principal food of the tribes of British Guiana consists of various animals and the wild fruits and roots which the country affords, supplemented by agricultural products, principally the cassava, banana, plantain, pumpkin, watermelon, yam, sweet potato, sugar-cane, pawpaws, cashews, corn, and peppers. Tobacco is raised. The fields are cleared and prepared by the men, but the women attend to the cultivation. The coast and forest people have their clearings near their

Ornaments
367A, 368AB
369 C

Ceremonial
dress
367 F, 368 A
369 A B E F

Food

houses, while on the savannas the natives are always at a considerable distance from their cultivated lands, because the ground near the houses is often stony, unshaded, and unproductive.

Cassava Cassava is the staple among vegetal foods; the root
367 E furnishes the bread, the preparation of which is an al-
369 E most continuous task for the women. After peeling,
the root is reduced to a juicy pulp by scraping on a
grater; this pulp is caught in a wooden trough, and
then transferred to a squeezer, a tube of closely woven
basketry, open at one end and there provided with a
loop for suspension, and at the lower end another loop
for the insertion of a pole to enable a forcible downward
pressure. The basket is so woven that, when this
pressure is applied, its diameter is greatly reduced,
while its length is increased, hence the poisonous juice
contained in the pulp is squeezed out. The dry cas-
sava is taken from the squeezer, broken up, and sifted,
so that it becomes a coarse flour, which is either wrapped
in leaves and put away for future use, or is made into
bread at once. Bread-making is a simple operation.
Formerly a stone griddle was used, but now the iron
griddle of trade is employed. The meal, which con-
tains enough moisture to make it adhere when pressed,
is spread over the hot griddle in a rather thin, circular
form, and patted and shaped with a wooden fan or
with a trowel-like implement of wood. After a few
minutes the cake is turned over, and in a short time it is
cooked, when it is placed on the roof of the house to
dry.

Among the Wapisiana, Taruma, and Atorai, the cassava is more commonly used in the form of farina, which is prepared by drying the meal on a hot stone, and by constant stirring to keep it from scorching. When dry and thoroughly cooked it is stored for future use. In this state it will keep indefinitely, and may be eaten as it is or mixed with stew. Cassava bread with prolonged cooking is used for making an intoxicating drink. The bread is broken up and mixed with water in a large wooden trough. Fermentation is accelerated by mastication of the bread, an operation carried on by the women.

The common method of preparing animal food is by stewing with peppers and salt in a large pot, which is never emptied, but more meat and peppers are added when necessary, and the stew, boiled again and again, is always ready. Many delicacies are added to the list of food staples. Birds' eggs are rarely eaten; but insects and their larvæ, and turtle- and lizard-eggs are eagerly sought, and many are smoked and dried for future use. Ants and grasshoppers, and their larvæ, are greatly relished.

Other foods

Hunting and fishing are exclusively the men's share of the work necessary in providing animal food. Before a party of hunters start out (they never travel singly), they observe one or more ceremonies to insure success. One in particular is the use of the "nose beena," a tapering string four or five feet long, the thin end of which is passed through a nostril into the back of the throat, when the whole length of the string

Hunting
Fishing
369 F

is drawn out through the mouth. This performance is supposed to have great efficacy. Other self-inflicted ordeals are resorted to for the same purpose.

Although the gun has been introduced, native implements are still used for securing game. Bows and several varieties of arrows are employed by the coast and forest people, while the blowgun is common among the natives of the savannas. Fish are caught in traps and nets, with hook-and-line, and with bow and arrow, and large numbers are taken by poisoning the waters of a small creek or inlet which has been dammed to form a pool. Roots, stems, and seeds of certain plants are pounded and thrown into the waters; the narcotic juices stupefy but do not kill the fish, when they are easily taken, while those left in the water ultimately recover from the stupor. Many of the arrows have poisoned points, but, like the poison placed in the waters for taking fish, these do not impair the meat for food.

Basketry The men of these tribes excel in basket-making. A
367 B E F variety of forms is produced, each for a specific purpose. Cassava presses and sifters, bread-trays, pack-baskets, baskets for the storage of food and trinkets, fish-traps, fire-fans, and containers for blowgun darts, all show a wide range of weaves, mainly twilled, and many of the finer basketry objects are ornamented with well-executed designs. Cotton is gathered and spun by the women. A small quantity is grown and spun by almost
Fiber all the Indians of British Guiana, but by far the larger
367 E part of the industry is conducted by the Arekuna, who
369 A B E F distribute their product among other tribes. Cotton is

used mainly for the manufacture of hammocks. Fiber from the *Mauritia* palm, and silk grass, are likewise used for making hammocks and cordage.

Among the household utensils may be found vessels made of gourds, calabashes, and pottery. Wooden stools are numerous. Fire-blowing fans of basketry and wood, stirring paddles for cooking, and presses for extracting the sap from sugar-cane, are common domestic appliances. Some skill is shown in wood-working, especially in fashioning weapons.

Musical instruments are represented by drums, rattles made of gourds, flutes, pan-pipes, whistles, and a stringed instrument made from the leaf-stalk of the aeta palm. For the latter a narrow strip of the outer skin is raised from the stalk, but not cut away at the ends; the strip is divided into three or four strings, with a piece of wood like a fiddle-bridge at each end. Wind blowing across the strings produces the sound. These instruments are all more or less used in connection with ceremonies and dances.

Particular attention is called to the survival of the stone celt-hatchet, used as a cutting blade set in an angular warclub of polished hardwood. These clubs are not only often highly ornamented with incised designs filled with white pigment and neatly bound with cotton cords or streamers, but display a variety of forms unusual in tropical America and reminiscent of the islands of the South seas. In one example the stone celt-blade is replaced by one of steel or iron, marking a transition between ancient and modern

Utensils
368 B
369 D

Musical
instruments
369 F

Warclubs
370 B

times. A pamphlet describing the warclubs, published by the Museum, treats these interesting weapons in greater detail.

DUTCH GUIANA

(Case 370 B)

A FEW specimens collected from the "Bush negroes" Bush are exhibited. These people are not Indians, but, Negroes as their name implies, are descendants of Africans, imported at various periods between 1660 and 1840, principally by the Dutch, as slaves on sugar plantations. Their number gave them courage to resist the harsh treatment to which they were subjected, with the result that an insurrection was precipitated, followed by vigorous hostility toward the whites from about 1715 to 1775, when they won their freedom and became an independent body of such strength that, but for the help of the Carib Indians, they would have been a serious menace to the Dutch planters. The climatic conditions of the country were found to be similar in many respects to the Gold Coast of Africa. Hence today is found a colony of Bush negroes estimated to number about 7000, living a primitive life much like that of their forefathers. They inhabit the country along the Maroni, Coermolibo, and upper Cottica rivers. With the exception of their basketry, which is distinctively Carib, their artifacts show surprisingly little Carib influence. Their language is a remarkable mixture of the original African coast dialects, plus "Pidgin English," Dutch, French, and Spanish.

FRENCH GUIANA

(Case 370)

A FEW characteristic objects from the Indians of French Guiana, principally spears and warclubs with ornamental cane wrappings, are exhibited.

BRAZIL

(Cases 356 C, 359 C, 362)

OF the many tribes of Brazil and of the tributaries of the Amazon beyond its borders, but few specimens of their handicraft are shown. Among the Indians represented, however, are the Conebo, living in the region of the Waupes river in Brazil and Colombia, who show particular skill in pottery-making, an interesting feature of which is a kind of glaze on the surface, produced by applying copal gum to the vessel after firing, but while still hot. The painted designs in many cases show a highly conventionalized form of the human figure. The long and powerful bows of the Conebo are wrapped with cotton thread the greater part of their length, and are embellished with designs, similar to those on the pottery, painted on the wrapping. The arrows are long and usually have broad points of bamboo; these also are ornamented with painted designs.

The
Conebo
359 C

The Tucano, of the same region, like other tribes of the Amazon basin, devote much time to ceremonial observances. The paraphernalia used in their dances

The
Tucano
359 C

is highly ornamented, chiefly with bright-colored feathers. A headdress and a necklace are shown on a bust. Other interesting objects employed in ceremonies are the large cigar and cigar-holder. When in use the cigar is placed between the tines of the fork-like holder and the sharpened end of the handle is thrust into the ground; the smoker then reclines at ease in his hammock, reaching out from time to time to draw in a whiff of smoke from his huge cigar.

On the north side of the central pyramid in the East Hall is shown a Tucano *tundúy*, or log-drum, ornamented with painted geometrical patterns in white. Drums of this type are found generally in the upper Amazon region, among many tribes, notably the Tucano, Jivaro, Zaparo, and Uitoto, by whom they are used not only in ceremonies, but for signaling, especially for sounding alarm in times of danger. It is said that under favorable weather conditions these drums may be heard for fifteen miles. The drums are suspended horizontally on two vine ropes tied to four posts planted in the ground. They are beaten with two short drumsticks, the striking ends of which are covered with crude rubber, over which is stretched a net of vegetal fiber. Some examples, like the specimen exhibited, are ornamented with conventional patterns in white, blue, or red paint, and sometimes even the supporting posts bear ornamental designs.

Putumayo
River
Indians
362 A B

Other objects, from the Putumayo River Indians, are the massive bows with ornamented wrappings, and circular-bladed paddles with elaborated incised designs.

The region between the Tapajos and Madeira rivers is occupied by the nomadic and warlike Munduruco, who were much feared by neighboring tribes, which called them by a name signifying "decapitators," on account of the customary treatment of captives, whose heads they preserved in such manner that they retained the facial features to a large extent (see page 151). Two such heads, probably obtained from victims among the neighboring Parentintin tribe, are displayed.

The Munduruco

Preserved heads

The Caraja and Yuruna Indians on the Xingu river, like the Munduruco, are warlike, as some of their weapons suggest. Several bone-pointed spears from the Caraja, with elaborate basketry coverings and feather ornamentation, are shown. A headdress from the Yuruna is of special interest from the fact that the crown is made from a wasp-nest surmounted with bright-colored feathers.

Caraja and
Yuruna
362 A B

PARAGUAY

(Cases 359 A B D-F, 360, 361)

THE ethnology of Paraguay is represented by objects obtained from the nomadic tribes of the Gran Chaco region, including the Chamacoco, Lengua, Tumraha, and Macikui.

Tribes

The country of these Indians is of a forbidding nature, subject to both flood and drought, with but only brief intervals of favorable weather. The Indians congregate in small villages numbering only a few families, and each separate clan lives in its own rude shelter, or *toldo*, made of branches, roughly roofed with a thatch of grass or palm-leaves, and protected on the south or

Dwellings

stormy side with a sunshade of reed-matting erected in front of the hovel. In these clan dwellings each family has its own apartment.

The attire of the men is scanty. For everyday use a blanket-robe woven of cotton by the women is worn; it usually bears a pattern depicting the markings seen on snake-skins, or representing trails, palm-trees, or other natural objects. This garment is worn suspended from the waist or covering the entire body as occasion or weather demands. When hunting, the men usually wear only a fringed skin girdle and rude sandals of rawhide. Similar footgear is used by the women when gathering firewood in the forest, to protect them from the thorny undergrowth. Sandals of antbear-skin are worn in certain ceremonies. The everyday garment of the women is a skirt made of two or three skins of the goat, sheep, or small deer, sewn together, to which is added a fur mantle in cold weather.

Like many tribes of South America, especially those of the Amazon region, the natives of the Gran Chaco bedeck themselves with gorgeous clothing for gala and ceremonial occasions. Headdresses and girdles made of the feathers of the parrot, macaw, duck, and rhea, are worn. Belts with pendent deer-hoofs or snail-shells, girdles of human hair and seeds, and clattering pendants of antbear claws and hollow bones adorn the costume on such occasions. Necklaces of bright-colored seeds, trade glass beads, and pieces of freshwater musselshells, turtle-bones, and occasionally animal-teeth, are common.

Labrets Large wooden button-like labrets are worn in the lower lip by the men, especially those of the Lengua tribe.

Dress
359 B E F
361 A B E F

Ornaments

These strange ornaments cause such distention of the lip that from a distance it looks like a protruding tongue, hence the popular name *Lengua*, applied by the Spaniards. These labrets are regarded as emblems of manhood. The first insertion of the labret is accompanied by a ceremony to which strangers are not willingly admitted. When a boy is six or seven years of age his parents send for a shaman, who places the boy on his back on the ground and marks the spot where he is to operate. Then he speaks to the boy, saying, "Come! Thou hast played long enough! It is time that thou should'st become a man. Henceforth thou must work, fight, and vanquish thine enemies. Above all thou must not cry, for then thou would'st be unworthy of the labret, the badge of a man!" The shaman then pierces the boy's lip with an awl, and in the aperture a straw is inserted to keep it open; then in course of time the opening is enlarged by thrusting in successively larger and larger plugs. When a warrior is killed in battle his labret is taken as a trophy by the victor and presented by him to his wife.

Initiation
into
manhood

Wooden ear-plugs are also worn, chiefly by the men. They are without ornamentation, except in the case of the shamans, who embellish them with pieces of tin in the shape of stars or crosses.

Ear-plugs
361 C

The principal foods of the Gran Chaco tribes are wild beans, palm-tops, and game, which are cooked in pottery vessels. Fish is usually roasted, and meat boiled; but vegetables are never cooked with meat. Agriculture is very primitive, and its practice is limited. Wild honey is eagerly sought and collected by the

Foods

natives. For cooking food and for smoking fire is made with a wooden hand-drill.

One of the most interesting features of the culture of the tribes of the Gran Chaco is the cultivation of tobacco (although to a limited extent), and the development of the custom of smoking. Tobacco pipes, sometimes of clay, but more commonly carved of wood, are abundant. From the Chamacoco tribesmen comes an odd specimen, long and staff-like, which served as a walking-stick as well as a pipe.

The domestic appliances of the Gran Chaco tribes consist of pottery vessels, the usual gourd and calabash receptacles, netted fiber carrying-bags, and animal-skins that serve as seats by day and as beds by night. From

the Chamacoco there are a number of finely woven bags of native cordage, and of trade glass beads obtained from the whites. Some of the fiber bags are exceptionally well made, and are very closely woven. The pottery, found probably at its best among the Macikui, is ornamented by impressing patterns with a neatly twisted cord in the soft clay of the vessels before firing, and then filling the open areas with paint. The gourd utensils of the Macikui are incised in pleasing designs.

Fish are generally shot with bow and arrow, but in some remote interior localities the Lengua dive in deep pools formed by weirs and capture their quarry under water with nets fastened between two long sticks. Fish-traps of twigs are set in gaps left in stone dams or weirs built across the streams during low water, and the fish are driven into them by lines of wading men.

Pipes
359 A
360 A
361 D

Utensils
359 D
361 C F

Fishing

Hunting with the bow and arrow is the common method of taking game, and the Lengua are said to be especially adept in disguising themselves with twigs and leaves so that they may approach their quarry within arrow shot. Club-like throwing-sticks are also used. For hunting small birds and animals the Tumraha use a very unusual weapon, a bow with a double string holding a pocket for hurling clay pellets.

The Tumraha Indians are also notable because of the fact that until recently there still survived among them a long wooden warclub shaped like a planting-stick, in the smaller end of which was set a narrow celt of stone; but there are examples entirely of wood, the handle and blade being carved of a single piece.

Besides the initiation into manhood, many dances and ceremonies are performed by these Indians, chief among which are thanksgiving feasts for food. Drums made of clay vessels with skins stretched across the mouths for heads, wooden whistles, and gourd rattles serve as the principal musical instruments. In some ceremonies masks impersonating bird-like demons are worn.

Musical
instruments
359 A
360 C D

Masks

PERU

(Cases 350 A, 354 C)

A WIDE gap exists between the culture of the wild tribes of eastern Peru and the Aymara and Quichua peoples of the Andean highlands and the coast, as will be seen by comparing the modern artifacts with the ancient. The wild tribes referred to display the familiar traits of the South American jungle or forest Indians,

Condition

Ancient
traits

and are famous head-hunters. The latter, particularly the Quichua, represent the retrograde descendants of the builders of the great stone fortresses of the Inca, skilled workers in metals and textiles. The Aymara and Quichua, although greatly degenerated, still maintain a few attenuated ceremonies that have descended from ancient times; they still chew the leaves of cacao, like their ancestors, and possess that peculiar beast of burden, the llama, the diminutive American camel. Potatoes, one of the gifts of the Inca to civilization, still form their principal diet on the cold, windy slopes of the Andes. In early times the potato, the tomato, and quinine (once called "Peruvian bark"), were all obtained from the Indians of western Peru.

Some examples of western Peruvian feather and textile work, ranging from prehistoric to early Spanish colonial times, are shown. These arts were long in vogue, and some of the later specimens, particularly the hand-woven ponchos, are exquisitely beautiful in color and design (see page 121).

Textiles and Feather-work
354 C

Some wooden cups of the early colonial period are not only ornately carved, but beautifully lacquered. Their late origin is manifest in some examples by the figures of white men on horseback, in the way that early colonial ponchos show mermaids, winged llamas, and other European or semi-European concepts; yet these cups, like the robes, are often close copies as well as direct descendants of the ancient forms.

BOLIVIA

(Cases 357, 358 B)

IN the collection from Bolivia are various objects gathered from the Aymara and the Quichua. These two tribes, however, are not confined within the Bolivian borders, but extend, as before mentioned (see page 117), into Peru, Chile, and Argentine, their hamlets being found mostly in the Andean highlands. Their dwellings are built either of stone covered with adobe or of adobe bricks, with a thatch roof. Sometimes the houses are erected on posts about three feet above the ground. A fireplace of clay is provided usually in the rear part of the house; vaulted ovens are built outdoors for bread-baking, and another fireplace is provided outside where general cooking is done in fine weather. The bed consists generally of a pile of sheep and llama skins on an earthen platform in one corner of the house; and sometimes a clay bench along the rear wall is provided for lounging.

The food supply is principally vegetal, the staple being potatoes, which are eaten fresh, frozen, or dried. Being an agricultural people they raise quantities of corn, beans, barley, wheat, and many kinds of fruits and vegetables suited to the varying altitude. They also cultivate alfalfa and other fodder for their sheep and llamas. Cotton is grown in the river valleys.

Many of their cultivated areas are in a sloping country where terraced fields are necessary; these are watered by a well-understood system of irrigation. An earth-covered storehouse is built near the dwellings, where

beans, corn, potatoes, and dried meats are kept for community use in case of food shortage. Being semi-Christianized, it is customary for the Indians to place a cross on top of the storehouse to keep evil spirits away.

Meat, which is used only sparingly, is supplied by the llama, vicuña, guanaco, sheep, goat, deer, chickens, and some wild birds. Fish, which also are eaten, are taken with hooks, nets, traps, and with bow and arrow. A fermented drink is made from ground corn boiled in water. Fermentation is caused by the addition, after cooking, of corn which has been chewed to a paste.

Clothing is made from native cloth of llama, sheep, or vicuña wool, and cotton. The man's costume consists of a sleeved shirt and short trousers, with a poncho for extra warmth. The shirts of the women are longer than those of the men; a blanket is wrapped around the waist as a skirt or a petticoat, and a square shawl is worn over the shoulders. Up to the age of five or six years children wear only a shirt. Sandals of leather and hats of braided straw are sometimes worn.

Dress
357 B For adornment women wear a highly decorated spoon-shape pin of silver to fasten their shawls, and necklaces of seeds and glass beads.

358 B The exhibited material representing the Indians of the lowlands of Bolivia in many ways resembles the objects gathered from the Indians of Brazil and the interior of Ecuador.

Wild tribes
357 A B The Pacaguara, who live in the region between the Beni and Mamore rivers in the northern part of Bolivia, and the Chacobo who inhabit the region toward the Ucayali river across the Peruvian border, use quantities

of brilliant feathers from tropical birds for headdresses and other ornaments. The use of beetle-wings and monkey-teeth for necklaces and headdresses is also prevalent among these people, as is the case with cotton and other fiber for hammocks, such as the one exhibited. They also make a cloth from the inner bark of a certain tree which often is decorated with artistic painted designs. A number of specimens of this cloth are exhibited.

Adornment
357 A B
358 B

Textiles

PATAGONIA

(Cases 358 A, Stairway Case 161 A)

OCCUPYING the vast territory lying south of the Rio Negro of Argentine to the Straits of Magellan are a group of tribes known as the Tehuelche, Puelche, and Penck. The Puelche generally frequent the district Tribes extending from the Rio Santa Cruz to the Rio Chubut, and the Tehuelche from the Santa Cruz to the straits. They are so intermixed as to be distinguishable only by dialectic differences in language and slight difference in physique. The Penck occupy the region between the Rio Chubut and the Rio Negro; they speak an Araucanian language, and are notably different from the Puelche in physique and feature.

Of the three tribes living in Patagonia the Tehuelche alone are represented in the Museum collections. These pampean nomads originally were strictly a foot-people, but the introduction of horses by the Spaniards in 1536 made a great change in their mode of living, because horses made transportation on the arid pampas easier and quicker. The Tehuelche are noted for their unusual

The
Tehuelche

stature, many of them ranging from six feet to six feet four inches, and of proportionate build. Their breadth of chest and their muscular development have attracted the attention of travelers, and indeed they were reported Physique to be giants by the first Europeans who met them. The Tehuelche are noted runners, and in their sports display great quickness and strength. They now almost invariably travel on horseback, but when forced to do so they can walk great distances without distress.

Dress and Adornment The dress of the Tehuelche men consists of a waist-cloth, either of linen, blanket, or a piece of an old mantle; a robe, about six feet square, made of the skins of young or of unborn guanacos, and sometimes of skunk, fox, rhea, or wildcat. The mantle is secured about the waist by a girdle, often ornamented with silver, in which the tobacco-pouch, knife, and bolas are secured. Their feet are protected by boots made of the hocks of the horse or the puma, over which they sometimes wear overshoes made from the hock of the guanaco. They go bareheaded, their long hair being confined by a forehead-band of yarn or of cloth. For ceremonial and other gala occasions they adorn their knife sheaths, belts, and horse gear with silver studs or plate, and wear necklaces of silver and blue glass beads.

The women wear a loose calico gown extending from shoulder to ankle, and over this a guanaco-skin mantle secured below the throat with a silver pin ornamented with a large disc. If they are very poor, a thorn serves the purpose. When traveling they also wear belts ornamented with blue glass beads or with copper or silver ornaments, and boots of horsehide similar to those

worn by the men, except that the hair is left on. On state occasions they wear huge earrings and necklaces of silver and blue glass beads. Both sexes smear their faces, and occasionally their limbs, with paint made from red ocher, powdered white gypsum, and grease. The women cover their bodies with white paint at the time of marriage. Tattooing is common among both sexes.

The tents, or *toldos*, of the Tehuelche, designed primarily as windbreaks, are made of forty to fifty full-grown guanaco-skins sewn together and smeared with a mixture of grease and red ocher. Large square tents are used for more permanent dwellings. The covering is drawn over the frame from the rear and secured by thongs to the front poles. Curtains made of skins cleaned with flint and obsidian scrapers, fastened between the inner poles, partition the sleeping places, and the baggage, piled round the sides, excludes the cold wind.

Dwellings

The introduction of the horse into Patagonia, as on the plains of North America, greatly increased the Hunting efficiency of the Indians in traveling and in procuring game, but because of their acquired taste for horse-flesh it likewise has greatly reduced the constant necessity of hunting. In aboriginal times they were dependent for food almost entirely on the chase, using the sling, the bow and arrow, the lance, and the bolas, the last a group of stone balls fastened together by thongs, for taking the guanaco and the rhea, or South American ostrich. Thrown at the legs of the game they desire to capture, the balls spread out and wind themselves about the guanaco, entangling and tripping it. Their

358 A

occasional vegetal diet consisted of roots, a species of wild potato, and apples and berries when procurable.

Weaving
(Stairway
161 A) Weaving is confined to the manufacture of robes, head-bands, and garters by the women, who are also sometimes silversmiths.

Religion The Tehuelche believe in a great good spirit gifted with much power, who made the Indians first, and also the animals necessary to their maintenance. This spirit, however, seems to take little trouble as to their welfare, consequently most of the religious observances have in view the propitiation of evil spirits, which are supposed to lurk continually outside the *toldo* and under particular rocks and rivers, watching for an opportunity to harm the people. This is prevented by the spells of the medicine-men, who are not only supposed to be gifted with the power to suppress the spirits, but who claim to be able to see them. On occasions of sickness an attempt is made to drive away the evil spirits by firing guns, throwing lighted brands into the air, and beating the backs of the *toldos* with lance-shafts or bolas. If a child hurts itself while playing, mares are slaughtered as a kind of thanksgiving offering that it did not die; a house is erected, and a feast and dance take place. In case of illness the doctor is sent for, and if he says the person will live, a feast is given.

Smoking When about to smoke, the Tehuelche invariably puff toward each cardinal point, muttering an incantation. They then lie prone on the ground and inhale several whiffs which induce a state of torpor for a minute or two. A drink of water is then taken and they recover their senses completely.

On the death of a Tehuelche, his horses, dogs, and other animals are slain, and his weapons, clothing, and other belongings are placed in a heap and burned. The flesh of the horses is distributed among the relations, and the widow, who cuts her hair short in front and paints her face black, departs, bag and baggage, to the *toldo* of her relations or to that of the chief. The body is sewn in a mantle or poncho and buried in a sitting posture, facing eastward, and a cairn of stones is generally erected over the grave.

Funeral customs

TIERRA DEL FUEGO

(Case 358 A)

OCCUPYING the territory in the vicinity and south of the Straits of Magellan, generally known as Tierra del Fuego, "Land of Fire," are found a group of tribes known as the Ona, Haush, Alaculoof, and Yahgan. Living in a desolate, sub-Antarctic region, characterized by gales and cold, and with a rainfall perhaps unequaled, these hunting Indians exhibit a simplicity in life and costume which contrasts so strongly with the culture of the Chilean and Argentine peoples that the latter seem rich by comparison. Each of the four Tierra del Fuego tribes speaks a language of its own. The Ona occupy, or have occupied, most of the mainland south of the strait, while the Haush, now almost extinct, lived on the extreme southern extremity of the mainland near Beagle channel. The Yahgan inhabit the southwest coast of the mainland and many of the numerous islands in the southernmost extremity of the archipelago.

Tribes

The Alaculoof territory extends from the western end of the strait southward as far as Brecknock peninsula and northward up the Patagonian channels.

Less is known of the Alaculoof than of other Fuegian tribes. They have been so reduced by contact with whites that they have almost disappeared from Tierra del Fuego, with the exception of those who live in the region of Last Hope inlet, Port Grappler, Port Tamar, the vicinity of Scholl bay, Dawson island, and Beagle channel. In 1904 their number was estimated at 800. No adequate linguistic comparison has been made of their language, and many of their customs are not recorded. They are said to preserve a tradition of the existence of a stone giant which harassed them and stole their women, until he was slain by an heroic youth.

Artifacts The Alaculoof use canoes dug out of beech logs, and are equally at home on land and water. Some of their craft, spacious enough to accommodate 20 or 30 persons, are said to be the largest of any on the South American coast. They weave fish-nets of seal sinew, and use the bow and arrow, the sling, spear, harpoon, and knife in hunting and war.

THE YAHGAN Culturally, the Yahgan resemble the Alaculoof in general appearance, customs, and character, and many of the facts regarding Yahgan culture are applicable to the Alaculoof, although their language is different. An approximate census made more than fifty years ago placed their number as probably 2800, but, as in the case of the Alaculoof, they have been greatly reduced, so that now only about 100 survive. The low status of the culture of the Yahgan is perhaps due to their en-

vironment and isolation. Living on the seaboard, and in a sub-Antarctic climate, their staple food, with the exception of a few berries and other meager vegetal products, is derived from the sea. It is owing to the necessities of this food quest that they have developed Foodrude but seaworthy canoes, both hollowed from logs and made of beech-bark, in which they sometimes venture considerable distances out to sea in search of stranded whales, seals, eggs, and fish. Model canoes, of both the types referred to, containing miniature weapons and other objects used by Yahgan hunters, are displayed.

Deriving their livelihood chiefly from the sea, the Yahgan are what may be termed canoe nomads. Occasionally they assemble in central settlements, but threatening starvation soon scatters them about the archipelago in small family groups. They have no chiefs nor communal government, but in their community life it is customary for one to divide food or plunder equally with others.

Occasionally the Yahgan show deference to a medicine-man, who is supposed to have power over the elements. When a man dies, everything possible is done to efface all memory of him; all his belongings are destroyed, and his name is never mentioned. When death occurs far from home the remains are cremated, evidently to prevent their desecration by enemies or animals. In other cases the dead are interred.

Religion
and death

Occasionally the Yahgan hunt whales in the open sea with spears and harpoons. Seal and otter are also taken with spears, the otter hunter often being aided by dogs. The eastern Yahgan use the bow and arrow in hunting

Hunting

the guanaco. Birds are snared, or are killed with slings or with bow and arrow.

The common form of shelter occupied by the Yahgan, Dwellings as well as by the Ona, is a large conical wigwam, consisting of a framework of saplings or tree trunks, covered with grass, ferns, branches, bark, skins, or practically anything at hand, and provided with one or two doors. Sometimes the ground inside the shelter is scooped out, and grass and branches are spread on the floor. The fire is made in the center.

A mantle of sealskin or of sea-otter skin, or both, is Dress the common and only garment of the Fuegian tribes. Among the Yahgan it is worn over the shoulder and chest to the waist, where it is fastened with a string.

Baskets Bark vessels 358 A The common form of basketry found among the Fuegian tribes is made of rush, and it is of the half-hitch coiled variety of a technic known as the "Fuegian coil." The baskets vary in size and shape, and are used for a variety of domestic purposes. Receptacles of bark, such as buckets and cups, are made also.

Ornaments All the Fuegian tribes wear necklaces of shell and bone, and sometimes wristlets and anklets of frayed hanks of plaited sinew, often colored red. The feather crown is quite common, and fillets of plaited grass or sinew are worn, although the Yahgan men commonly use their slings as fillets.

THE ONA While the Alaculoof and Yahgan may be classed as canoe or water tribes, the Ona are strictly a foot people, living on the mainland adjacent to the archipelago. Culturally the Ona have much in common with the Yahgan and the Alaculoof, and they also have dis-

tinctive cultural elements which they share with the Tehuelche of Patagonia, such as tattooing and the use of the child's cradle.

The Ona do not go nude, as do the other Fuegians, except when the rigor of the climate compels them to Dress wear the skin robe. The Ona mantles, made of guanaco-skins and occasionally of fox-skins, reach to the knees or the feet, and are always worn except in hunting, wrestling, and climbing. The Ona women wear under-garments of guanaco-skin tied to the body and reaching from the breast to the knees. Their mantles are usually shorter than those of the men. In hunting and fighting the men wear a triangular peak of guanaco-skin over the forehead, so as to be less easily distinguished by game or by enemies, but the women are always bare-headed. Both men and women while traveling wear rude moccasins, and sometimes leggings, made of skin; when hunting the men paint or stain their bodies to resemble the snow or the ground over which they must advance to stalk their prey.

The Ona still use the bow and stone-tipped arrow, but sometimes their arrows are tipped with points made from glass secured from wrecks along their storm-swept coast. Although they possess only a few other rather rude tools, their bows and arrows are beautifully finished, and they are expert marksmen. Their chief food is the flesh of the guanaco, which animal is hunted with bow Food and arrow. Certain vegetal and sea foods are eaten when obtainable.

When Ona boys become adolescent they are subjected to the tutelage of an experienced man for a year or two,

Ceremonies during which time they are obliged to fast and to undergo physical tests, and the society of women is forbidden. This training is to teach them courage, endurance, and the ethics of the tribe. The men dress in masks of skin and paint themselves to represent the numerous spirits for the purpose of terrorizing the women and children to test the courage of the boy, who, if found worthy, is finally told the truth about the supposed spirits and the purpose of the masquerade, namely, to keep the women in subjection, and he is threatened with dire punishment if he should reveal the secrets to women or children. The initiation rites of the Yahgan are similar, but data on this subject, as on many others pertaining to the Fuegians, are meager.

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